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**E-3 OPERATIONS PROCEDURES**

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This volume establishes effective and safe operations of the E-3 Airborne Warning and Control System (AWACS) and implements policy guidance in AFD 11-2, *Aircraft Rules and Procedures*; AFD 11-4, *Aviation Service*; and AFI 11-202V3, *General Flight Rules*. It applies to all E-3 units including Air Force Reserve Command (AFRC) Units. This publication does not apply to the Air National Guard (ANG). MAJCOMs/DRUs/FOAs are to forward proposed MAJCOM/DRU/FOA-level supplements to this volume to HQ AFFSA/A3OF, through HQ ACC/A3YA, for approval prior to publication in accordance with (IAW) AFD 11-2. Copies of MAJCOM/DRU/FOA-level supplements, after approved and published, will be provided by the issuing MAJCOM/DRU/FOA to HQ AFFSA/A3OF, HQ ACC/A3YA, and the user MAJCOM/DRU/FOA offices of primary responsibility. Field units below MAJCOM/DRU/FOA level will forward copies of their supplements to this volume to their parent MAJCOM/DRU/FOA office of primary responsibility (OPR) for post-publication review. **Note:** The terms Direct Reporting Unit (DRU) and Field Operating Agency (FOA) as used in this

paragraph refer only to those units that report directly to HQ USAF. Keep supplements current by complying with AFI 33-360V1, *Publications Management Program*. See paragraph 1.4 of this volume for guidance on submitting comments and suggesting improvements to this publication. The Paperwork Reduction Act of 1974 as amended in 1996 affects this instruction. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW AFMAN 37-123 (will convert to AFMAN 33-363), *Management of Records* and disposed of IAW the *Air Force Records Disposition Schedule (RDS)* located at <https://afrims.amc.af.mil/>.

The Privacy Act of 1974 affects this instruction. Privacy Act System Identifier F011 AF XO A, *Aviation Resource Management System (ARMS)*, covers required information. The authority for maintenance of the system is Title 37 U.S.C. Section 301a, *Incentive Pay*; Public Law 92-204, Section 715, *Appropriations Act for 1973*, Public Law 93-570, *Appropriations Act for 1974*, Public Law 93-294, *Aviation Career Incentive Act of 1974*, and Executive Order 9397, *Numbering System for Federal Accounts Relating To Individual Persons*.

**(552ACW)** Provides additional mission planning and local operational guidance for E-3 AWACS crew members. Implements policies to support E-3 flight operations and implements policy guidance in AFPD 11-2, *Aircraft Rules and Procedures*; AFD 11-4, *Aviation Service*; and AFI 11-202V3, *General Flight Rules*. This supplement is directive and applies to all units assigned to the 552 ACW and the 513 ACG. It does not apply to Air Force Reserve Command (AFRC) and Air National Guard (ANG) units, except where noted otherwise. This publication may be supplemented at any level, but all direct Supplements must be routed to the OPR of this publication for coordination prior to certification and approval. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Information Management Tool (IMT) 847, *Recommendation for Change of Publication*; route AF IMT 847s from the field through Major Command (MAJCOM) publications/forms managers. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AF Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with the *Air Force Records Disposition Schedule (RDS)* located at <https://www.my.af.mil/gcss-af61a/afrims/afrims/rims.cfm>. Contact supporting records managers as required.

## ***SUMMARY OF CHANGES***

This interim change incorporates guidance from long-term FCIF and ORF items and corrects errors and omissions. Major changes include removing the definition of “operational requirement” and like terminology, correcting the process for Visiting Aircrew Members, deleting the requirement for an annual FCIF review, modification of the Go/No-Go currency review, removal of references to NORAD Special Mission Identifiers, standardizes mission execution timelines, adds taxi approval at NAS Sigonella (LICZ), and refines requirements for flight crew and mission crew kit and pubs kits.

**(552ACW)** This document is substantially revised and must be completely reviewed. Revised unit publications issue. AMS changed to C2MS. Long term FCIF and ORF items have been incorporated. HAZMAT transportation has been clarified. Attachment 4 (Deployment / Contingency Actions), Attachment 5 (Flight Crew Kit Contents), Attachment 6 (Mission Crew

Kit Contents), Attachment 7 (CONUS FLIP Kit Required Publications), Attachment 8 (Worldwide FLIP Kit Required Publications), Attachment 9 (AFI 11-2E-3V3\_552ACWCL-1, Flight Management Go/No-Go Checklist), Attachment 10 (Initial Coordination Meeting Guide), Attachment 11 (Flight Crew Specialized Planning Guide), Attachment 12 (Coordination Meeting Guide), Attachment 13 (Execution Briefing Guide), Attachment 15 (Mission Reports), Attachment 17 (Tinker AFB Diversion Chart), Attachment 18 (E-3 Instrument Procedures), Attachment 19 (In-flight Emergency Standards), Attachment 20 (Scenario of the Day), Attachment 23 (ASO Kit Inventory/Minimum Requirements), Attachment 24 (Aviation Internet Websites), Attachment 25 (AFI 11-2E3V3 Maneuver Restrictions for Personnel Other than Aircrew), Attachment 26 (Waiver Summary), Attachment 27 (Operational Check Flights), Attachment 30 (Operational Risk Management), Attachment 31 (Index of Attachments). Previous Attachments 21 (Operation Southern Watch), Attachment 22 (Operation Northern Watch) have been deleted.

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## Chapter 1

### GENERAL INFORMATION

**1.1. Aircrew Responsibility.** This volume, in conjunction with other governing directives, prescribes those procedures applicable to the operation of E-3 aircraft under most circumstances. It is not a substitute for sound judgement. Procedures not specifically addressed may be accomplished if they enhance safe and effective mission accomplishment.

**1.2. Deviations.** Deviations from these procedures require specific approval of the MAJCOM/A3 unless an urgent requirement or an aircraft emergency dictate otherwise. In that case, the Pilot In Command (PIC) will take the appropriate action to safely recover the aircraft.

**1.3. Waivers.** Unless specifically noted otherwise in the appropriate section, waiver authority for requirements of this volume is the applicable MAJCOM/A3. Forward waiver requests through appropriate channels to the MAJCOM/A3 for approval. All approvals will include an expiration date. HQ ACC/A3TV and HQ ACC/A3YA are Office of Collateral Responsibility (OCR) on all waiver requests to this AFI.

**1.4. Recommended Changes.** Send comments and suggested improvements to this volume on an AF Form 847, *Recommendation for Change of Publication*, through channels to the parent NAF and MAJCOM. Forward approved recommendations to HQ ACC/A3YA. HQ USAF/A3/5 is the approval authority for Interim Changes to this instruction.

**1.5. Distribution.** Issue this volume to E-3 aircrew members IAW local procedures.

## Chapter 2

### MISSION PLANNING

**2.1. Responsibilities.** The responsibility for mission planning rests with the Aircraft Commander (AC). Preparation for mission tasking and subsequent execution is the responsibility of the Mission Crew Commander (MCC). The operations functions of the unit will support both efforts. Flying crews may perform their own mission planning or units may utilize mission planning teams or planning cells in order to meet mission planning requirements. In any case, qualified individuals will be designated to perform mission planning and/or briefings. Units will develop specific procedures to ensure all aircrew members are thoroughly prepared for each flight.

**2.2. Forms and Logs.** Specific flight plans, logs, and mission forms will be developed/specified by the appropriate group commander. Existing AF and MAJCOM forms should be used to the maximum extent possible.

**2.3. Fuel Conservation.** Aircrew and mission planners will manage aviation fuel as a limited commodity and precious resource. Fuel optimization will be considered throughout all phases of mission planning and execution. Excessive ramp and recovery fuel adds to aircraft gross weight and increases fuel consumption. Do not ferry extra fuel beyond optimum requirements for safe mission accomplishment and training objectives. Aircrew and mission planners will optimize flight plans and flight routing for fuel efficiency. In-flight procedures such as climb/descent profiles and power settings should also be considered for efficient fuel usage. Aircrew should employ the following aviation fuel optimization measures without compromising flight safety or jeopardizing mission/training accomplishment:

2.3.1. Optimize fuel loads. Mission plan for the required ramp and recovery fuel. Ensure ramp fuel is correct upon arrival at aircraft.

2.3.2. Minimize APU use. Use ground power units when practical.

2.3.3. Delay engine start time. Establish and implement local engines start time standards.

2.3.4. Minimize aircraft weight through optimized fuel loads and reduction of equipment not necessary to accomplish the mission.

2.3.5. Establish Command and Control (C2) and flight following procedures to ensure timely notification of mission changes/cancellations to avoid unnecessary or unproductive flight time.

### 2.4. Navigational Charts.

2.4.1. Annotate an appropriately scaled navigational chart with the route of flight and the following:

2.4.1.1. Special Use Airspace (SUA) within the altitude structure and within 50 NM of the route of flight/orbit airspace.

2.4.1.2. Mission airspace, E-3 orbit airspace, and E-3 air refueling airspace.

2.4.1.3. Emergency airfields sufficient to cover the route of flight.

2.4.1.4. High terrain within 50 NM of the route of flight.



2.4.1.5. ADIZ boundaries within 50 NM of the route of flight.

2.4.1.6. Equal Time Point (ETP) and FIR boundaries as required.

2.4.2. Annotate an Operational Navigation Chart (ONC), or larger scale, with the planned departure/arrival airfield and the following:

2.4.2.1. Planned departure/arrival procedure.

2.4.2.2. Special Departure Procedure (SDP).

2.4.2.3. Highest terrain or obstacle along expected route of flight.

2.4.2.4. Highest terrain or obstacle within 30 NM.

**NOTE:** Units will, if necessary, specify flight plan requirements and procedures in their local chapters to meet specialized mission requirements.

**2.5. Mission Planning Requirements.** The appropriate group commander may waive requirements contained in this paragraph if deemed necessary to accomplish a specific mission.

2.5.1. Briefings/Debriefings.

2.5.1.1. The AC/MCC will brief/debrief all crewmembers to ensure safe/effective mission accomplishment. Locally developed briefing guides (developed IAW AFI 11-202V3) will be used to provide a reference list of items that apply to a particular mission and will be used as the basis for mission planning and briefing actions. Brief items in any logical sequence, and those items understood by all participants may be briefed as “Standard”. All aircrew members will attend these briefings unless excused by the AC/MCC or unless local procedures dictate otherwise.

**NOTE:** Units will develop and document guidance for items that are commonly briefed as “Standard”. The purpose of unit or local standards is to reduce the briefing time of administrative tasks to allow for concentration on the mission. In no case do these procedures relieve the aircrew of the responsibility to comply with USAF directives. Aircrew will use these procedures unless conditions, objectives or execution dictate the aircraft commander to brief as “non-standard.”

2.5.1.2. Passengers. The AC will assign a crewmember to be responsible for passengers or distinguished visitors; reference Transportation of Passengers in paragraph 3.12 in this instruction for minimum responsibilities.

2.5.1.3. Aircraft and Aircrew Status. Aircraft status will be obtained on the day of the flight from the appropriate maintenance unit including open discrepancies from the Air Force Technical Order (AFTO) Form 781A, *Maintenance Discrepancy and Work Document*. Aircrew status will be obtained from ARMS personnel. Aircraft and aircrew status will be briefed/addressed as appropriate.

2.5.1.4. Controller Assisted Rendezvous. Either the AC or Nav will review the Air-to-Air Refueling (AAR) rendezvous procedures and techniques with the AWO. The Nav will supply the AWO with the following information:

2.5.1.4.1. AAR Initial Point (ARIP) and AAR Control Point (ARCP) coordinates in degrees LAT/LONG.

2.5.1.4.2. AAR altitudes.

2.5.1.4.3. Desired tanker offset and turn range, if necessary.

2.5.1.4.4. Range and offset calls desired during the rendezvous.

2.5.1.4.5. Any alternate procedures.

2.5.1.4.6. Transponder codes (on day of flight, if available).

2.5.1.5. Controller Directed Rendezvous. The AWO will brief the flight deck on the AAR rendezvous procedure to be employed. The AWO will brief the following information:

2.5.1.5.1. AAR rendezvous type.

2.5.1.5.2. AAR altitude.

2.5.1.5.3. Anticipated turn ranges/direction.

2.5.1.6. Orbit Planning. The AC and Nav will coordinate with the MCC, SD, ASO, and ECO to determine optimum orbit configuration based on tasking and orbit limitations.

2.5.2. Mission Crew Planning. The following items will be accomplished during mission planning:

2.5.2.1. MCC will ensure mission activities are planned according to applicable checklists and guides.

2.5.2.2. MCC, SD, ASO, ECO, CSO, and Battle Staff will develop a communication plan to ensure accomplishment of mission requirements.

2.5.2.3. The CDMT will coordinate all computer software requirements. Minimum software requirements will be IAW local operating procedures.

2.5.2.4. The MCC will assess impact of equipment limitations and adjust tasking as necessary. The MCC will conduct a final review of mission crew planning.

**2.6. Local Checklists/Aircrew Aids.** Locally produced checklists and aircrew aids will include as a minimum:

2.6.1. Mission planning checklists (as required).

2.6.2. Briefing guides (as required).

**2.7. Theater Procedures Aircrew Aids.** The unit specifically tasked to support an area of operations will develop theater procedure aircrew aids (classified/unclassified) and make them available to the crew upon implementation of a contingency Operations Plan (OPLAN) for deployment to the theater. As a minimum, these aids will include:

2.7.1. Communications plans.

2.7.2. Flight and mission crew positional actions/procedures.

2.7.3. Rules of Engagement (ROE).

2.7.4. Other information deemed necessary by the unit.

## Chapter 3

### AIRCREW OPERATING PROCEDURES

**3.1. PIC Responsibilities.** SQ/CC shall designate an AC, Instructor Pilot (IP), or Evaluator Pilot (EP) as the PIC for all flights, on a flight authorization form, IAW AFI 11-401, *Aviation Management*, and applicable supplements. The PIC is responsible for the safe, effective conduct of flight operations. The aircrew is responsible to the PIC for the successful accomplishment of all flight activities IAW AFI 11-202V3 and applicable MAJCOM supplements. PIC responsibilities and/or authority include:

- 3.1.1. Managing crew resources and safe mission accomplishment.
- 3.1.2. Welfare of the crew.
- 3.1.3. Final word for requesting or accepting any waivers affecting the crew or mission.
- 3.1.4. Ensuring that any portion of the flight affecting the accomplishment of the E-3 mission is coordinated with the MCC.

### 3.2. Crew Manning:

- 3.2.1. Minimum flight crew manning includes the AC, Copilot (CP) or FP, Nav, and Flight Engineer (FE).
- 3.2.2. Proficiency (P)-sorties will be flown with a minimum of five crewmembers: AC, CP, Nav, FE, and one additional crewmember to act as safety observer. The applicable Operations Group Commander (OG/CC) has the waiver authority to authorize a flight without a safety observer.
- 3.2.3. Minimum mission crew manning to power up the mission systems will include MCC, ASO, ART, CDMT, CT, and CSO. Mission crew manning may vary by the type mission flown.
- 3.2.4. Normally, aircrew manning for operational employment will be IAW AFI 65-503, *US Air Force Cost and Planning Factors*, Table A36-1. Mission crew manning may vary by the type of mission flown; SQ/DO or DETCO may tailor aircrew manning to meet operational requirements.
- 3.2.5. Unless waived by the SQ CC/DO, inexperienced CDMTs will fly with an experienced CDMT and inexperienced ARTs will fly with an experienced ART at all times until experience requirements are met.

**3.3. Crew Rest/Flight Duty Period (FDP)/Crew Augmentation:** Crew rest, flight duty period and crew augmentation will be IAW AFI 11-202V3 and applicable MAJCOM supplements with the following additional guidance.

- 3.3.1. With autopilot, altitude hold, or any axis of the autopilot inoperative, limit basic FDP to 12 hours and augmented FDP to 16 hours.
- 3.3.2. Flight crew augmentation.

3.3.2.1. Minimum crew augmentation will consist of a qualified AC or FP, Nav, and FE in addition to the normal flight crew. Adding flight crewmembers after the first takeoff in a crew duty period is not considered augmentation.

3.3.2.2. The applicable OG/CC (or as delegated) will determine the augmented mission crew composition depending upon mission requirements.

3.3.3. Non-duty Time. Crewmembers will be afforded 12 hours of non-duty time after a flight before reporting for normal non-flying duties, unless waived by SQ CC/DO.

3.3.4. Crew Rest Timing. Crew rest for successive flight activity will begin when the last crewmember departs after completing related aircrew duties but not earlier than 1 hour after final landing from previous flight activity.

3.3.5. Crew Rest for Deploying/Redeploying Aircrews. When transitioning four time zones or more, unless waived by applicable operations group commander, ground time between landing and subsequent takeoff will not be planned for less than 18 hours. This does not apply to "Ops stops" made within an aircrew duty period.

3.3.6. Management of AFRC Crewmembers. The on-scene commander or E-3 DETCO is responsible for the effective management of aircrews. An element of that responsibility is the effective use of the Reserve associate aircrew personnel during their periods of availability. There is no guarantee that missions will always be completed at scheduled Mission End Time (MET). Therefore, it is incumbent upon Reserve associate crew members to make available sufficient time to accommodate unavoidable delays in returning to home station. Scheduled Return Time (SRT) will be calculated MET plus 24 hours for routine exercise and operational deployments. SRT(s) for contingencies and missions of unknown duration will be determined by the 513 ACG/CC and 552 OG/CC or the requesting authority in coordination with HQ AFRC. The SRT will be determined and placed on the initial and subsequent flight authorizations until the mission is complete. The overall objective is to recover aircrews on schedule and provide scheduling stability. Two essential elements of this concept are realistic determination of SRT(s) based on mission duration and conscientious management by the on-scene commander or DETCO to ensure return of reserve associate aircrews by the MET. Except in uncontrollable or unusual circumstances, Reserve associate crewmembers must be assured that their missions will be complete within the SRT. The Reserve associate AC and MCC will be provided a copy of all mission itinerary changes. Delays in return of Reserve associate personnel beyond their SRT will be coordinated through the 552 OG/CC, the 513 ACG/CC, and concurred with by the aircrew. Every available means will be used to return Reserve associate crewmembers to home station to meet the SRT. If Reserve associate aircrew (or members) cannot extend past the SRT, the on-scene commander will verify whether military or contract means of transportation is available. If no such means are available, the on-scene commander or DETCO will use the most expeditious means, including commercial air, to return Reserve associate personnel to home station.

**3.4. Pre-Mission Duties.** The AC in coordination with the MCC and DO/DETCO, may adjust crew report time to meet mission requirements. Crew report times will allow sufficient time to accomplish all preflight activities (normally 2+15 hours prior to takeoff). Normally use a 3+30 hour show time prior to takeoff for sorties planned and flown on the same day, unless a Mission Planning Team (MPT) is utilized. If an MPT is utilized, the SQ/DO or MPT will set the show time. The FE and technicians (CSO/CT/CDMT/ART) should arrive at the aircraft 1+30 hours

prior to the scheduled takeoff time. Crew show at the aircraft for all other crewmembers will normally be no later than 1 hour prior to the scheduled takeoff time.

3.4.1. On the day of the mission, aircrew should only be scheduled for duties related to the mission, regardless of duty day.

**3.5. Minimum Equipment.** The 552 OG is the Combat Air Force (CAF) lead for developing and maintaining the Minimum Equipment List (MEL) for use by all AWACS units. The MEL is a guide to determine operable equipment required for safe flight. 552 OG will forward a copy of the MEL to HQ ACC/A3YA, HQ PACAF/A3A, and HQ AFRC/A3T.

### **3.6. Communications:**

3.6.1. Required Radio Calls. Make the following radio calls to the applicable command post or operations center, unless local directives or tactical deception requirements specify otherwise:

3.6.1.1. Maintenance discrepancies which will delay preflight or takeoff (AC).

3.6.1.2. Engine start time (at least 10 minutes prior to engine start to allow notification of Central Security Control (CSC) when appropriate). (AC/CP)

3.6.1.3. Anytime equipment malfunction or incident occurs that will adversely affect mission accomplishment. (AC/MCC)

3.6.1.4. Actual takeoff time. (Nav)

3.6.1.5. Significant changes in mission timing. (Nav)

3.6.1.6. Post-air refueling report. (CSO) (Optional per AC/MCC)

3.6.1.7. On station/Ops Normal time (NLT 15 minutes after arriving on station). (CSO) (Optional per AC/MCC)

3.6.1.8. Time off station (NLT 15 minutes after departing station). (CSO) (Optional per AC/MCC)

3.6.1.9. Maintenance codes and Estimated Time of Arrival (ETA) prior to final landing. (CSO)

3.6.1.10. Revised ETA (if changed by more than 15 minutes) when in UHF radio contact. (Nav)

3.6.1.11. Sortie block time and flight duration. (Nav)

3.6.2. Maintenance Codes (Aircraft Landing Status and System Capability Codes). The FE and each technician will provide the maintenance codes to the CSO prior to landing. Use the Aircraft Landing Status and System Capability Codes as defined in AFI 21-101, *Aerospace Equipment Maintenance Management*, and applicable MAJCOM supplements.

### **3.7. Weapons Controller Assisted/Directed Rendezvous Responsibilities:**

3.7.1. Weapons Controller Assisted Rendezvous. The AWO will provide information to assist the Nav in accomplishing the rendezvous and for situational awareness.

3.7.2. Weapons Controller Directed Rendezvous. The SD is primarily responsible for the success of the AWO directed rendezvous. The AWO will brief the flight deck on the A/R

rendezvous procedure to be employed. The AWO will brief rendezvous type, A/R altitude, and anticipated turn ranges/direction.

3.7.3. Communications. Internal coordination between the Nav and AWO during the rendezvous will be over Net 1. Other crewmembers will not use Net 1 for 30 minutes before the AAR Control Time (ARCT) until after the refueling is complete, unless safety of flight is in jeopardy.

3.7.4. Procedures. The AWO will execute the pre-planned type of rendezvous as coordinated with the AC, Nav, and tanker. The AWO will pass bearing, range, and offset of the tanker as prebriefed/required. The AC will advise the AWO/MCC when to terminate mission crew assistance and when the mission systems may be configured for AAR.

**3.8. Radar Radiation Restrictions.** Do not radiate the mission radar at or below flight level (FL) 180 due to the potential for conflict with Visual Flight Rules (VFR) traffic that may pass closer than 650 feet vertically and 1,300 feet horizontally. However, during contingency operations, emergency situations, and special operations, the mission radar may be radiating at or below FL 180 within equipment limitations.

### **3.9. On-Station Procedures:**

3.9.1. Prior to orbit intercept the Nav will brief the AC and MCC of orbit type, radius, present altitude and winds aloft over mission net.

3.9.2. Fly mission orbits at best endurance indicated airspeed whenever practical but not lower than maneuver speed for 30 degrees of bank.

**3.10. Aircraft Position Monitoring.** Aircraft position relative to a preplanned track is the responsibility of both the flight and mission crews. Aircraft position and orbit pattern changes will be coordinated between the MCC, Nav, and AC. The applicable Wing Commander (WG/CC) may waive the following requirements if deemed necessary to accomplish a specific mission.

#### **3.10.1. Flight Crew Procedures:**

3.10.1.1. Pilots will monitor the E-3 position via radio navigational aids and Global Positioning System Integrated Navigation System (GINS). The AC will ensure separate steering solutions are selected on the AC and CP Control Display Units (CDU).

3.10.1.2. The Nav, in coordination with the AC, will establish a radio navigation fix or line of position between the closest point of the E-3 orbit and the threat area as a “no fly beyond line” for all E-3 orbits. This information will be passed to the MCC.

3.10.1.3. The AC, CP, and Nav positions will be occupied, except for periods of crew relief, during flights within 25 NM of an established prohibited area or within 50 NM of a potentially hostile border.

3.10.1.4. When flying in Warning Areas, Military Operating Areas, Restricted Areas, or Air Traffic Control (ATC) assigned working areas with other aircraft, the AC and MCC are responsible to ensure safe separation between the E-3 and other aircraft

### 3.10.2. Mission Crew Procedures:

3.10.2.1. The MCC must have at least a stand-behind position at an operational console when a dedicated console is not available.

3.10.2.2. The AWACS monitor and MCC must maintain awareness of the E-3s position and altitude. Their consoles must display the AWACS DATA LINK net participant symbol, and they must have a means to determine E-3 altitude for deconfliction purposes. If the accuracy of the E-3 symbol is in doubt, consider worst case location, and coordinate with the flight deck to take immediate action to reposition the aircraft in order to avoid the prohibited/threat areas.

### 3.11. AWACS Monitor:

3.11.1. During flight under Due Regard when the mission radar or Identification, Friend or Foe (IFF) is operating, the MCC will designate an AWACS monitor to provide traffic advisories to the flight crew. At any other time, an AWACS monitor may be utilized as determined by the PIC. The AWACS monitor will notify the flight crew and MCC when AWACS monitor assumes monitor duties, notify the the MCC when it changes from weapons to surveillance (or vice versa), and notify both the flight crew and MCC whenever AWACS monitor is terminated. The MCC is ultimately responsible for ensuring that there is an AWACS monitor on duty.

3.11.2. The AWACS monitor will pass track information with the following parameters or as modified by the PIC:

3.11.2.1. For ATC-controlled airspace: Tracks that are within  $\pm 1,000$  feet (IFF Mode C) or 3,000 feet radar measured of E-3 altitude and 15 miles from the E-3, if the track is on a heading towards the E-3, overtaking, or passing in front of the E-3.

3.11.2.2. For uncontrolled airspace: Tracks which are within  $\pm 3,000$  feet of E-3 altitude and 15 miles from the E-3, if the track is on a heading towards the E-3, overtaking, or passing in front of the E-3.

3.11.2.3. Traffic advisories will include any climbing/descending and/or maneuvering aircraft which could pose a threat to the E-3.

3.11.3. Pass the tracks to the flight crew over Net 1 giving clock position, range, altitude, and crossing information about the traffic. If the E-3 is in a turn, pass traffic calls using magnetic bearing and range rounded to the nearest 10 degrees. **Note:** To increase situational awareness and promote radio communication deconfliction, AWACS monitor will monitor ATC frequency.

### 3.12. Transportation of Passengers:

3.12.1. Space-A Passengers. Space-A passengers will not normally fly on the E-3 due to mission and training requirements.

3.12.2. Responsibility. The crewmember(s) designated by the AC to be responsible for passengers or distinguished visitors will:

3.12.2.1. Supervise passenger movement, especially on the flight line.

3.12.2.2. Assist passengers in locating assigned seats.

3.12.2.3. Assist in familiarizing passengers with aircraft interior and survival equipment.

3.12.2.4. Brief all passengers according to AFI 11-202V3 (using [Attachment 3](#) of this publication), prior to engine start.

3.12.2.5. Assist and direct passengers in the event of an aircraft emergency.

3.12.3. Loading/Off-loading:

3.12.3.1. When appropriate, engines on the left side of the aircraft can be shutdown and an aircrew member will be positioned at the bottom of the steps to direct loading/off-loading operations prior to any passengers entering or departing the aircraft.

3.12.3.2. If only the left engines are shutdown, the TAXI BACK or an approved checklist for the given situation may be used.

3.12.4. Passenger Comfort. Pilots should make every effort to enhance the comfort of passengers. Flight operations should be planned for the minimum use of drag devices and maneuvers which might cause discomfort or apprehension.

**3.13. Debriefings:**

3.13.1. Conduct the maintenance debriefing as soon as practical after engine shutdown. The AC, MCC, FE, ART, CDMT, CT, and any crewmember making an entry in the AFTO Form 781A, *Maintenance Discrepancy and Work Document*, will attend.

3.13.2. If required, conduct an intelligence debriefing.

3.13.3. Conduct a crew debriefing.

**3.14. Flying Clothing/Equipment:**

3.14.1. All aircrew members will wear or carry the minimum items of clothing and equipment according to applicable directives. In addition, all crewmembers will wear flight gloves during engine start, takeoffs, landings, and emergencies except where the flight gloves hinder completion of required actions.

3.14.2. It is the responsibility of each crewmember to store/secure their personal and professional equipment carried onboard. Keep equipment clear of all entry doors, hatches and all emergency equipment during all ground and flight operations. The FE, CSO, and ART will ensure that these areas are clear of obstructions during their preflight inspection.

3.14.3. Crewmembers will not wear lightweight headsets when entering the lower compartments.

**3.15. Aircraft Security at Enroute Stops/Destination:**

3.15.1. The AC is responsible for ensuring aircraft security at enroute stops. Secure the aircraft as a Protection Level 2 resource IAW AFI 31-101, *The Air Force Installation Security Program*, as supplemented by MAJCOM. This requires a US entry controller (at least one per every two aircraft) and restricted access. Provide a copy of the flight orders and passenger manifest (as applicable) to the entry controller as a way to identify persons authorized entry to the aircraft as well as those crewmembers designated by the AC to have escort privileges. Perimeter patrol can be accomplished by host nation security, but the entry controller must be US security personnel or a US E-3 crewmember. In addition, equipment



classified as SECRET (that cannot be removed from the aircraft) must be safe-guarded by US security personnel or a US E-3 crewmember. Only the AC may release security forces from guarding the aircraft. Waiver authority is the appropriate WG/CC.

3.15.2. The MCC is responsible for the security of classified mission documents and software. While deployed or during enroute stops, COMSEC and software can be stored on the aircraft when U.S. security personnel are used as the entry controller. In the event of a stop at a location where no U.S. security personnel are available, COMSEC will be stored in the Command Post or the MCC will designate crewmember(s) to remain with the software and COMSEC to provide security.

**3.16. Personal Publications Requirements.** Personal Publications Requirements. Local units will issue each crewmember publications IAW AFI 11-215, *USAF Flight Manuals Program* as supplemented. See local supplement to this publication for requirements listing.

**3.17. Aircraft Recall/Diversion.** Unless received over secure communications, challenge any recall or diversion of an E-3 using the appropriate authentication for the theater of operation. P-sorties do not require authentication.

**3.18. Transition Training:**

3.18.1. Do not conduct transition when scheduled takeoff or final landing is between 2400L and 0600L without SQ/DO approval.

3.18.2. When performing transition with mission crew on board, the total transition time will not exceed 2+30 hours. However, do not conduct more than 1+30 hours at one time without SQ/DO approval.

3.18.3. Aircrews may conduct off-station transition if airfield was included in the mission planning conducted prior to flight and approval was obtained by SQ/DO (or higher authority).

3.18.3.1. Aircrew may “drop-in” to airfields designated as “familiar” in local supplements without pre-flight mission planning/approval. The PIC will ensure current NOTAMS are reviewed, be familiar with the airfield, and coordinate with SQ/DO (or higher authority) prior to commencing descent to the airfield.

3.18.4. Transition duty day is a period of 12 hours that starts and runs concurrently with the maximum flight duty periods and applies to all flight crewmembers. Transition may be accomplished with additional crewmembers onboard who have exceeded transition duty day provided they are not occupying their primary flight crew duty position or performing flight crew instructor or Stan Eval Flight Examiner (SEFE) duties.

3.18.4.1. The OG/CC can approve requests to extend transition duty day to 16 hours. 513 ACG may perform transition training on local training missions provided duty day does not exceed 16 hours and actual flying time does not exceed 12 hours.

**3.19. Crew Coordination Drills.** Thoroughly plan, brief and practice simulated crew coordination drills (i.e. Ditching, Crash Landing, Loss of Pressurization, Nuclear Event, Smoke or Fumes, and Fuselage Fire drills) during each training sortie when mission profile allows. The following procedures apply:

3.19.1. The AC and MCC will coordinate prior to initiation, and make every effort to inform all instructors and evaluators of crew coordination drill timing in order to maximize training.

3.19.2. Operational requirements will not be interrupted.

3.19.3. Doors and hatches will not be opened and equipment will not be powered down. However, if a simulated crew coordination drill is performed after calling "off station," a normal equipment power down may be incorporated into the drill in anticipation of landing the aircraft.

3.19.4. If passengers are onboard during the drill, passengers will be briefed but will not participate.

3.19.5. The AC will make a Public Address (PA) announcement at the start of the crew coordination drill vulnerability period and at the conclusion of the drill.

**3.20. Aircraft Cleanliness.** It is the AC and MCC's responsibility to ensure the aircraft is clean and orderly after a mission. All crewmembers are responsible for removing or stowing their personal and professional items prior to departing the aircraft.

**3.21. Aircraft Configuration for Static Display.** Whenever an E-3 is on static display and opened for viewing, there will be a passenger stand at each open door. Hatches will only be opened when an aircrew member is positioned at the hatch. ACs will ensure proper safety/security precautions are taken to protect the aircraft, passengers and crew. Command instructions concerning participation in static displays and aerial events provide further guidance.

### **3.22. Readiness Postures.**

#### **3.22.1. Types of Alert.**

3.22.1.1. Readiness Posture One (RP-1) denotes an aircraft and crew capable of launching in 1 hour from notification. Crews designated for RP-1 alert duty should normally be housed in a designated alert facility. 12 hours of pre-alert crew rest is required prior to assuming RP-1 alert.

3.22.1.2. Readiness Posture Three (RP-3) denotes an aircraft and crew capable of launching in 3 hours from notification. 12 hours of pre-alert crew rest is required prior to assuming RP-3 alert.

3.22.1.3. Readiness Posture Fifteen (RP-15) denotes an aircraft and crew capable of launching 15 hours after notification. The RP-15 crew will be present for normal duty each day and carry pagers and/or cell phones for notification. Crew rest begins after notification.

**3.22.2. Maximum flight duty period for RP-1, RP-3, and RP-15 crews.** Maximum flight duty period for RP-1 and RP-3 crews is 12 hours. RP-1/RP-3 flight duty period extensions will be IAW MAJCOM Supplement to AFI 11-202V3. Maximum flight duty period for RP-15 crews is 12 hours. RP-15 flight duty period extension to 16 hours is waivable by the OG/CC based on ORM and mission analysis.

3.22.3. Alert duty scheduling, flight duty on alert, and maximum number of days on alert will be IAW MAJCOM Sup to AFI 11-202V3.

**3.22.4. Post-Alert Compensation Time.**

3.22.4.1. If alert duty is performed away from normal quarters (e.g. alert facility or billeting) for a period of 96 hours or more, compensation time off will be 1 day for every 4 days on alert duty, unless waived by the applicable group commander or designated representative.

3.22.4.2. No compensatory time is authorized if alert duty was performed in normal quarters.

## Chapter 4

### FLIGHT CREW OPERATING PROCEDURES

#### 4.1. Adverse Weather.

4.1.1. **Icing Restrictions.** Flight into areas of forecast or reported severe icing is prohibited. Prolonged operation, such as cruise flight or holding, in areas of moderate icing should be avoided. **Note:** Air Force Weather Agency technical notice AFWA/TN 98/002, *Meteorological Techniques*, states that freezing drizzle is equivalent to moderate icing and freezing rain is equivalent to severe icing. When freezing fog is forecast or reported, aircrew will confirm with the local weather agency what type of icing is associated with the freezing fog.

4.1.1.1. Do not takeoff under conditions of freezing rain or freezing drizzle.

4.1.1.2. Freezing/frozen precipitation (freezing rain, drizzle, snow, fog, or temperatures near 0° C, etc.) may cause ice or frost to accumulate on aircraft surfaces. When an aircraft requires deicing/anti-icing prior to takeoff, refer to the following:

4.1.1.2.1. Flight crew will be familiar with and follow all procedures and restrictions in T.O. 1E-3A-1, *Flight Manual* and T.O. 1E-3A-1-1, *Performance Manual*, with respect to de-ice/anti-ice procedures. Further guidance is provided in T.O. 42C-1-2, *Aircraft Anti-icing Procedures*.

4.1.1.2.2. MIL-A-8243 Type I and Type II de-icing fluids do not provide any anti-icing benefit, and therefore do not have holdover times. As a guide, for approved anti-icing fluids, crews may use published anti-icing holdover times IAW T.O. 42C-1-2 and AFFSA (FAA) holdover tables located at the HQ AFFSA website. The holdover time begins when anti-icing fluid is first applied and is affected by intensity/type of precipitation, time, temperature, and type/dilution of mixture. PIC shall use this information to determine when holdover time is exceeded and re-apply fluid if required.

4.1.1.2.3. The PIC will ensure the following information (4-element code) is received from the deicing ground crew after anti-icing is complete:

4.1.1.2.3.1. **Element A.** Element A specifies the type of anti-icing fluid (e.g. Type IV).

4.1.1.2.3.2. **Element B.** Element B specifies the percentage of fluid within the fluid/water mixture (e.g. 75/25 is 75% fluid and 25% water).

4.1.1.2.3.3. **Element C.** Element C specifies the time of the beginning of the anti-icing step. All holdover times are based on this value. All times are based on Local (L) time.

4.1.1.2.3.4. **Element D.** Element D specifies the date (day, written month, year). The date will be consistent with local time.

4.1.1.2.4. In all cases, PICs will ensure a visual inspection is completed within 5 minutes of departure.

4.1.2. **Turbulence Restrictions.** Flight into areas of forecast or reported severe turbulence is prohibited. Every effort will be made to avoid areas of reported moderate turbulence. If moderate turbulence is forecast along the planned route of flight, the AC will coordinate with weather personnel as to the best course of action to vacate the condition, if encountered.

4.1.2.1. Crews should confirm type of aircraft the forecast turbulence applies to, or what type of aircraft reported the encounter, to gain a more accurate picture for their route of flight.

4.1.2.2. The PIC is responsible for ensuring all aircrew/passengers are seated, with seat belts fastened, when areas of moderate or greater turbulence are encountered or anticipated. **Warning:** Serious injury may occur if aircrew/passengers do not have their seat belts fastened and the aircraft encounters moderate or severe turbulence.

4.1.3. **Thunderstorm Avoidance.** Pilots will neither file a flight plan nor fly into an area of known or forecasted thunderstorm activity when the weather radar is inoperative or unusable and thunderstorm activity cannot be visually circumnavigated. During flight, avoid thunderstorms by at least:

4.1.3.1. 20 NM at or above FL 230.

4.1.3.2. 10 NM below FL 230.

4.1.3.3. In the vicinity of the airport, maintain at least 5 NM separation from heavy rain showers. **Note:** Approaches or departures may be authorized by the appropriate group commander if thunderstorms are officially observed to be closer than 10 NM (but not less than 5 NM) from the airport. IAW AFI 11-202V3, the thunderstorm must not be producing any hazardous conditions (such as hail, lightning, strong winds, gust fronts, heavy rain, wind shear, or microburst) at the airport, and must not be forecast or observed to be moving in the direction of the route of flight (to include the planned missed approach corridor, if applicable).

4.1.4. **Lightning Avoidance.** The following conditions are most conducive to lightning strikes and prolonged flight in them should be avoided:

4.1.4.1. Within  $\pm 8^{\circ}\text{C}$  or  $\pm 5,000$  feet of the freezing level.

4.1.4.2. In clouds or in any intensity of precipitation or turbulence associated with thunderstorm activity.

4.1.5. **Temperature Correction.** For all flight operations, temperature corrections to published altitudes shall be applied IAW AFI 11-202V3 and the chart provided in the *Flight Information Handbook* (FIH) to ensure adequate obstacle clearance.

## 4.2. Takeoff and Landing Data (TOLD)/Restrictions:

4.2.1. A flight engineer will compute all initial takeoff and landing data during mission planning utilizing an authorized TOLD computer program or T.O. 1E-3A-1-1, *Flight Manual Performance Data – E-3B, E-3C*. A pilot will crosscheck this data using the computer program or T.O. 1E-3A-1-1. Either the initial computation or crosscheck of TOLD data will be done using the T.O. 1E-3A-1-1.

4.2.1.1. The applicable group commander may authorize use of Mission Accomplishment Planning Methods, IAW T.O. 1E-3A-1-1, when operational/contingency missions dictate.

4.2.2. **Rolling Takeoffs.** Rolling takeoffs are authorized (and with a crosswind component above 20 knots required) IAW T.O. 1E-3A-1, *Flight Manual, E-3B & E-3C Aircraft*. Make rolling takeoffs whenever appropriate.

4.2.3. **Reduced Power Takeoffs.** The following information is provided in addition to that found in T.O. 1E-3A-1-1:

4.2.3.1. Whenever practical, a reduced power takeoff should be made.

4.2.3.2. Actual inboard takeoff rated thrust (TRT) will be displayed on the inboard exhaust pressure ratio (EPR) bugs for quick reference in the event TRT is required.

4.2.3.3. For all reduced thrust takeoffs, 1,000 feet or more will be subtracted from runway available to compute all data except refusal speed.

4.2.3.4. Reduced thrust takeoffs may be accomplished on a wet runway provided the runway is free of snow, ice, and slush.

4.2.3.5. Reduced thrust takeoffs are permitted with falling precipitation provided precipitation is not moderate to heavy.

4.2.4. **Tailwind Takeoffs.** Tailwind takeoffs are not recommended and normally should not be planned or accomplished. If operational necessity or ATC considerations dictate acceptance of a tailwind condition, a maximum component of 10 knots may exist provided data does not exceed allowable T.O. 1E-3A-1-1 limits.

4.2.5. **Crosswind:**

4.2.5.1. Unless further restricted by aircraft gross weight or emergency conditions, the maximum crosswind component (gust included) for takeoff and landing with RCR 26/23 is 25 knots, RCR 15 is 20 knots, RCR 10 is 15 knots. If RCR falls between the above RCR values, use next lower RCR restrictions. Operation at higher crosswind values requires specific approval by applicable group commander.

4.2.5.2. Copilots are limited to a maximum takeoff/landing component of 15 knots unless under IP/SEFE supervision.

4.2.6. **Runway and Taxiway.** IAW MAJCOM directives, minimum runway length and width for takeoff or landing is 7,000 x 135 feet unless waived by OG/CC. Minimum taxiway width is 75 feet unless waived by OG/CC.

4.2.6.1. Aircraft will normally takeoff and land on the longest suitable runway available.

4.2.6.2. Intersection takeoffs are not recommended and will not be performed unless operational necessity dictates. In such a situation, follow MAJCOM directives.

4.2.7. **Runway Condition Reading (RCR).** Aircraft will not takeoff or land when reported RCR is less than 10. The applicable OG/CC has the authority to waive the minimum RCR to 7 when operational necessity warrants. Do not conduct aircraft ground operations to include taxi and towing with a RCR less than 7.

4.2.8. **Noise Abatement.** IAW T.O. 1E-3A-1 and T.O. 1E-3A-1-1 guidance. An engine failure or other emergency condition during takeoff is a non-normal condition and takes precedence over published noise abatement procedures.

4.2.9. **Landings.** Except in emergency situations, the following apply:

4.2.9.1. Computed landing distance plus 1,000 feet must not exceed runway available.

4.2.9.2. Full stop landings with less than 40 degrees of flaps are not permitted.

4.2.9.3. If it appears that the actual touchdown will occur beyond the first 1/3 or 3,000 feet (whichever is less) of the runway length, pilots will go-around.

4.2.9.4. Make no more than one full stop in a 30 minute period. When performing taxi back type operations and/or multiple full stop landings, observe brake limitations and cooling procedures IAW T.O. 1E-3A-1 and T.O. 1E-3A-1-1.

4.2.10. **Missed Approach.** Prior to starting an instrument approach, the AC will ensure performance complies with missed approach climb gradient requirements IAW AFI 11-202V3. For planning purposes, base performance on the expected go-around configuration.

### 4.3. Takeoff and Landing Policy:

4.3.1. Aircraft Commander Responsibilities.

4.3.1.1. A qualified AC will make all takeoffs and landings from the left seat when either of the following conditions exist:

4.3.1.1.1. When weather is below 300' ceiling and 1 statute mile (SM) visibility.

4.3.1.1.2. A distinguished visitor (Code 4, Code 4 equivalent, or higher) is on board as a passenger.

**NOTE:** IPs may takeoff or land in either seat under the conditions above; however, a copilot will not occupy the left seat.

4.3.1.2. ACs must be certified as “experienced” in order to accomplish the following activities:

4.3.1.2.1. Supervise an “experienced” CP during simulated engine-out maneuvers (approach, missed approach, or full stop landing).

4.3.2. Copilot Takeoffs and Landings.

4.3.2.1. Copilots may perform takeoff and landings if the weather is at least 300-feet ceiling and 1 SM visibility, or published minimums, whichever is higher.

4.3.2.2. During takeoffs and landings CPs must be properly supervised by an IP/SEFE or certified AC.

4.3.2.3. CPs must be certified by the SQ/CC as “experienced” in order to accomplish the following activities:

4.3.2.3.1. Takeoff and land under the supervision of a certified AC with passengers onboard (no DVs Code 4 or higher).

4.3.2.3.2. Perform simulated engine-out maneuvers (approach, missed approach, or full stop landing) under the supervision of an “experienced” AC.

#### 4.4. Preflight.

- 4.4.1. Receiver Autonomous Integrity Monitoring (RAIM) will normally be enabled at all times.
- 4.4.2. AUTONAV will normally be enabled for INU ground alignment.
- 4.4.3. To confirm proper INU alignment, the Nav will check the INU true headings prior to engine start and confirm they are within 1 degree of each other and cross-checked with the Attitude and Heading Reference System (AHRS).

#### 4.5. Engine Start/Taxi:

- 4.5.1. When using a motorized staircase vehicle (Very Important Person (VIP) Stand or "Air Stairs"), aircrews will close entry doors prior to the removal or placement of the stands.
- 4.5.2. The occupants of both pilot seats will have their seat belt fastened while taxiing and will also wear their shoulder harness during critical phases of flight.
- 4.5.3. Taxi speed in the parking area or any congested area will be slow enough to accommodate a wing walker.
- 4.5.4. The navigator will monitor GINS ground speed during taxi operations.
- 4.5.5. The navigator will use the weather radar to scan the departure path prior to takeoff to avoid flying into areas of heavy precipitation and/or possible associated turbulence.
- 4.5.6. At the hammerhead, flight crews will verify the accuracy of the GINS position.

**4.6. Frequency Monitoring.** The AC, CP, Nav, and FE will monitor the briefed primary radio frequency during all phases of flight unless directed otherwise by the AC. The AC will ensure VHF guard (if available), UHF guard, and mission interphone are monitored at all times. During critical phases of flight and during periods of high pilot workloads, pilots should monitor only the frequency required for flight operations (tower, departure, approach etc.). C2 or other frequencies to be monitored will be designated by the AC. The observer's seat occupant will be briefed on the relationship between the AC's Audio Distribution System (ADS) and the observer's interphone to prevent extraneous radio transmissions.

**4.7. Altitude Monitoring.** When climbing or descending, the pilot not flying or the navigator will call 1,000 feet above/below and approaching level off (within 200 ft) altitude. While operating at less than 2,000 feet above the ground, the pilot not flying the aircraft will inform the pilot at the controls anytime the indicated altitude varies more than 100 feet from the desired altitude, or if the aircraft appears to be dangerously close to terrain or obstructions. The navigator will back up the pilots in observing and reporting these deviations.

#### 4.8. Departure.

- 4.8.1. Departure Planning. Use AFI 11-202V3, AFMAN 11-217V1, *Instrument Flight Procedures*, this chapter, and the appropriate MAJCOM supplements. During mission planning, the flight crew will determine a gross weight that ensures E-3 performance will meet or exceed departure requirements. **Note:** In the event E-3 performance is unable to meet the published climb gradient at the desired gross weight, down load fuel, use other applicable approved methods described below, or delay until more favorable conditions exist.



4.8.2. All Engines Operating (AEO). The E-3 will meet or exceed the published climb gradient or 200 ft/nm, whichever is higher, for the departure runway.

4.8.3. One Engine Inoperative (OEI). The E-3 will meet or exceed the published climb gradient or 200 ft/nm, whichever is higher. Other methods, IAW AFI 11-202V3 and applicable MAJCOM supplements, may be used.

4.8.3.1. Special Departure Procedure (SDP). SDPs are authorized and available for the E-3. E-3 SDPs are MDS-specific OEI escape procedures intended only for emergency use after the loss of an engine. SDPs clear applicable screen heights and all obstacles along the defined escape flight path. Retrieve current E-3 SDPs from the Jeppesen AF Opsdata website

[http://www.jeppesen.com/wlcs/index.jsp?section=gms&content=gms\\_home.jsp](http://www.jeppesen.com/wlcs/index.jsp?section=gms&content=gms_home.jsp). User ID and password are available from 552 OG/OGV upon training completion.

4.8.3.1.1. Ad hoc' requests for fields not currently listed may be requested through applicable OGV NLT 72 hours prior to scheduled departure. 'Ad hoc' SDPs are valid for seven (7) days after the analysis date. The SDP analysis date is located in the upper left-hand corner of the takeoff performance sheet.

4.8.3.2. Vertically Clear all Obstacles. If crews are unable to meet 200 ft/nm or required published climb gradient and an SDP is not available, crews may subtract 48 ft/nm from the published climb gradient IAW applicable MAJCOM supplements, to approximate zero foot obstacle clearance. Minimum climb gradients may be published as 'Trouble T' restrictions in the IFR takeoff Minimums section of Flight Information Publications (FLIP) or on a standard instrument departure (SID). Other methods are available but may be restricted based on MAJCOM directives or guidance.

4.8.4. Screen Heights (SH). Required SHs are, in essence, obstacles and will be treated as such for performance calculations. Flight crew will ensure the calculated CFL allows the E-3 to cross the departure end of runway at or above the required SH. SH height requirements for departures depend on the agency that wrote the departure and/or the airfield where the departure is being flown. Reference FLIP, AFMAN 11-217V1, and where available, the SDP performance page.

4.8.5. Published low close-in obstacles. Climb gradients do not take into account "published low close-in obstacles" (obstacles or terrain 200' Above Ground Level (AGL) and below within one nautical mile from departure end of runway). These obstacles should normally be published as a NOTE on the SID or IFR departure procedure (Trouble T). The AC will ensure all applicable published low close-in obstacles along the departure flight path will be safely cleared. Crews should exercise caution when determining not to consider a published low close-in obstacle and realize there are factors that could result in a greater deviation from intended track centerline (i.e. high crosswinds, low ceiling/visibility, etc.). **Note:** Distance to published low close-in obstacles includes unused runway past CFL.

#### 4.9. Enroute Navigation:

4.9.1. Normally plan for maximum use of E-3 navigation equipment by flying great circle routes. Random Area Navigation (RNAV)/direct routing may be flown according to FLIP, *General Planning*. Navigators will annotate changes to the route of flight on the Navigational chart (unless safety of flight dictates). Revised ETA's will be computed and the ETA to

significant events will be briefed to the AC and MCC. Any waypoints or patterns entered into the navigation system will be crosschecked by an additional flight crew member.

4.9.2. The navigator will accomplish periodic crosschecks of navigation equipment, intended route, and cleared route to identify navigation errors, prevent inadvertent deviations and ensure the equipment is performing within tolerances. This crosscheck will additionally be performed: after level-off, prior to air refueling, prior to orbit intercept, and when assuming station. The AC (and MCC as required) will be immediately notified of any discrepancies/malfunctions.

4.9.3. Special Qualification Airspace Navigation. Both Required Navigation Performance (RNP) Airspace and Reduced Vertical Separation Minimum (RVSM) Airspace are considered special qualification airspace. These airspace requires aircrew certification. The E-3 is approved for operation in RNP airspace with operational limitations based on GINS navigational equipment. Integrated DAMA/GATM (IDG) equipped E-3s are approved for operation in RVSM airspace. Reference FLIP GP and the following guidance for RNP and RVSM requirements.

4.9.3.1. RNP-10 compliance includes navigation accuracy within 10 NM of actual position 95 percent of the time.

4.9.3.1.1. The E-3 may operate in RNP-10 airspace without time limits when “GPS-only” or “GPS/INS-blended” mode of navigation is selected. The E-3 may operate in RNP-10 airspace in “INS-only” mode for 6.2 hours from the time the Embedded GPS INUs (EGIs) were commanded to the NAV mode or the last aligned, whichever is later.

4.9.3.1.2. Updates will be IAW RNP/Basic Area Navigation (BRNAV) update and contingency procedures in this volume.

4.9.4. BRNAV (RNP-5) Airspace. Compliance includes navigation accuracy within 5 NM of actual position 95 percent of the time. BRNAV accuracy criteria is RNP-5.

4.9.4.1. The E-3 may operate in BRNAV (RNP-5) airspace without time limits when “GPS-only” or “GPS/INS-blended” mode of navigation is selected. The E-3 may be operated in BRNAV/RNP-5 airspace in “INS-only” mode for 2.0 hours from the time the EGIs were commanded to the NAV mode or the last aligned, whichever is later.

4.9.5. RNP/BRNAV Flight Planning. The PIC will review airspace requirements (i.e. specific RNP level and contingency actions, etc.) and assess mission impact when flying in RNP-10/BRNAV (RNP-5) airspace.

4.9.5.1. Enroute. At the RNP/BRNAV entry point both EGIs must be operational and RAIM must be ON and operational. Periodic crosschecks of all available navigation sources, intended route, and cleared route will be accomplished to identify navigation errors and prevent inadvertent deviation from ATC cleared routes. Advise ATC of the deterioration or failure of navigation equipment below navigation performance requirements and coordinate appropriate actions.

4.9.6. Reduced Vertical Separation Minimum (RVSM) Airspace. Airspace where RVSM is applied is considered special qualification airspace. Both the aircrew and the specific aircraft must be approved for operations in these areas. E-3s “with IDG” aircraft are approved for

unrestricted use in the full RVSM envelope. Refer to FLIP GP and the following guidance for RVSM requirements:

4.9.6.1. RVSM Equipment. Both primary altimeters, the autopilot (to include the altitude hold function), the altitude alerter system, and the IFF transponder must be fully operational before entry into RVSM airspace. Before entering RVSM airspace advise ATC of any RVSM equipment failures and request a new clearance.

4.9.6.1.1. Autopilot. The autopilot shall be engaged during level cruise except when circumstances such as the need to re-trim the aircraft require disengagement.

4.9.6.1.2. Altimeters. Crosscheck the altimeters (STBY to RESET) before or immediately upon entry to RVSM airspace.

4.9.6.1.3. Should any of the required equipment fail after entry into RVSM airspace, immediately notify ATC and coordinate a plan of action.

4.9.6.2. RVSM Operations. Continuously monitor systems and crosscheck altimeters to ensure they agree  $\pm 200$  ft.

4.9.6.2.1. Aircrews should limit climb and descent rates to 1,000 feet per minute when operating in the vicinity of other aircraft to reduce potential effects on traffic collision avoidance system (TCAS) operations.

4.9.7. Trans-oceanic flights. To minimize trans-oceanic gross navigational errors (GNE), Navs will accomplish a coast out/in fix during trans-oceanic flights or when the aircraft is operating out of radio aid range. For trans-oceanic flights navigators will compute an equal time point (ETP). Additionally, the Nav will annotate the time over an oceanic checkpoint on the Navigational chart. The aircraft heading will be crosschecked with the planned heading. The Nav will annotate the aircraft position on the navigational chart approximately 10 minutes after each oceanic waypoint is passed.

#### **4.10. On-Station:**

4.10.1. The CSO will normally control the use of HF 1. The AC will coordinate with the CSO if the flight crew requires its use. The MCC/CSO will coordinate with the AC if the mission crew requires the use of either of the flight crew's VHF or UHF radios.

4.10.2. Pilots and navigators will closely monitor the first complete trip around the orbit after initial intercept to ensure the aircraft is maintaining proper orbit.

4.10.3. The AC has the responsibility and final authority for determining when the aircraft should depart station. ACs will consider forecast enroute and destination weather, enroute winds, icing, mission requirements, fuel requirements, training requirements, etc.

4.10.3.1. Within 1 hour after assuming station or refueling, the flight crew will compute "bingo fuel" and report remaining station time to the MCC. If AAR is planned after orbit, make a similar computation allowing enough fuel so that in the event of a missed AAR, the aircraft can land at the destination or a preplanned alternate with the required fuel minimums. Bingo fuel computations will not include center wing tank fuel used as ballast to maintain center of gravity (c.g.) forward of 35% mean aerodynamic chord (MAC).

4.10.3.2. If fuel requirements necessitate a modification to on-station duration, pattern, or altitude, the AC will notify the MCC.

4.10.3.3. Make a weather check no later than 2 hours prior to estimated time of departure (ETD) from the orbit area (or prior to ETA if enroute). This check will include enroute, refueling track, landing base, and alternate base (if required) weather. Crews will use all available weather sources to keep abreast of changes.

4.10.3.4. Crews should fly an alternate mission in lieu of dumping fuel to adjust gross weight should an equipment malfunction or an inability to complete an assigned mission occur. Alternate missions should be planned and briefed during mission planning day.

#### **4.11. Arrival and Approach:**

4.11.1. Approach Briefing. Prior to starting descent from cruise altitude, the pilot flying the approach will brief the crew IAW T.O. 1E-3A-1 and AFMAN 11-217V1 requirements. During an approach, the AC, CP or FP, and Nav will each have a separate Terminal Approach Procedure or Standard Terminal Arrival Route (STAR) booklet available for use during the descent briefing and to reference during the approach. The pilot not flying the approach and the Nav will monitor their respective instruments and all radio transmissions by the controlling agency, and advise the pilot making the approach when noting any deviation from the prescribed procedures or instructions.

4.11.2. Instrument Approach Advisory Calls. The pilot monitoring the approach will make the following advisory calls:

4.11.2.1. Non-Precision Approaches:

4.11.2.1.1. 100 feet above minimum descent altitude (MDA).

4.11.2.1.2. "Minimums" at MDA.

4.11.2.1.3. "Runway in sight." Make this call when the runway environment is in sight. Do not call too soon when obstructions to vision such as fog, haze, low stratus clouds, etc., are present.

4.11.2.1.4. "Visual descent point (VDP)."

4.11.2.1.5. "Missed Approach Point," (MAP), if applicable.

4.11.2.2. Precision Approaches:

4.11.2.2.1. 100 feet above decision height (DH).

4.11.2.2.2. "Runway in sight." Make this call when the runway environment is in sight. Do not call too soon when obstructions to vision such as fog, haze, low stratus clouds, etc., are present.

4.11.2.2.3. "Decision height."

4.11.2.3. The navigator will monitor altitude and report deviations.

4.11.2.4. The pilot flying the aircraft will:

4.11.2.4.1. Acknowledge all advisory calls over interphone.

4.11.2.4.2. Announce intentions over interphone at the appropriate decision point for both instrument and visual approaches (i.e. "Crew we're going to land/go-around/touch-and-go").

4.11.3. Priorities. Upon commencing the final approach (glideslope interception or departing the final approach fix [FAF]), flight deck crewmembers will avoid unnecessary distractions. Priorities will be monitoring the approach/landing and completing the BEFORE LANDING checklist. All activities not associated with the approach/landing checklist accomplishment will cease.

**4.12. Touch-and-Go Landings.** Accomplish touch-and-go landings under the following conditions:

4.12.1. IP/SEFE supervision.

4.12.2. Minimum weather required is 300' ceiling and 1 SM visibility.

4.12.3. Crosswind component does not exceed the following (including gusts): Dry runway--15 knots; wet runway--10 knots.

4.12.4. No passengers on board.

4.12.4.1. The following are not considered passengers for this restriction: Wing supervisors, E-3 maintenance personnel, AFA/AFROTC cadets, FAA/ATC personnel, weapons directors, ACC TRSS Detachment 6 personnel not on aeronautical orders, Airborne Command Element (ACE) team members, mission essential ground personnel (MEGP), Security Forces, Intelligence personnel, and US customs personnel flying under the provisions of AFI 11-401 and MAJCOM supplement.

4.12.4.2. The following are not considered passengers for this restriction with applicable group commander approval prior to takeoff: military members not on aeronautical orders who are awaiting training, Computer Support Group (CSG) personnel conducting inflight software testing, and Mission Crew Training (MCT) and Flight Crew Training (FCT) contract instructors in direct support of training and operations.

4.12.5. The following length/width criteria apply: Dry runway--9,000 feet x 135 feet minimum; wet runway--10,000 feet x 135 feet minimum. On a wet runway, touchdown in the first 2,000 feet of the runway or initiate a go-around.

4.12.6. On wet runways, conduct touch-and-go landings at flaps 50 degrees only. On wet runways, display the actual charted go-around EPR on the inboard EPR "bugs" for quick reference in the event go-around EPR is required while airborne. Outboard EPR "bugs" should display 1.50 EPR. Wet runway touch-and-go landings are permitted with falling precipitation (i.e., drizzle or light rain), provided the precipitation is not moderate to heavy, not producing a runway surface condition (RSC), and it can be determined that water is not pooling on the runway.

4.12.7. Runway is free of all snow, ice, and slush. This does not preclude touch-and-go landings provided the RCR is reported as 10 or higher. The 962 AACS will use the following procedures: landing surface (67.5 feet left and right of centerline) is completely clear of slush and the minimum RCR reading for any portion of the runway is 10.

**4.13. Inflight Simulated Emergency/Engine-Out Procedures:**

4.13.1. Inflight, prior to simulated emergency procedures, the IP/AC must alert all crewmembers in the cockpit.

4.13.2. In an actual emergency, all student pilot/copilot training and simulated emergency procedures will be terminated. Training will resume only when the AC has determined that no hazard to safe aircraft operation exists.

4.13.3. Except for simulated engine-out landings, restore all aircraft systems to normal operation prior to landing.

4.13.4. IP/SEFE supervision is required for all touch-and-go's, flaps 14, flaps 25, and flaps 25 to 50 approaches/landing. Prior to performing a flaps 14 approach/landing, update the brake energy limited landing weight and landing distance limited landing weight and brief differences to normal configuration habit patterns, emphasizing gear lowering sequence.

**4.13.5. Simulated engine-out maneuver restrictions (inflight) :**

4.13.5.1. Simulated engine-out takeoffs are prohibited.

4.13.5.2. Simulated two-engine operations are prohibited.

4.13.5.3. Do not accomplish actual engine shutdown inflight. A reduction in thrust can adequately simulate training in aircraft control procedures.

4.13.5.4. Limit all inflight simulated engine-out activity to a gross weight of 270,000 lbs or less, with rudder boost on.

4.13.5.5. Pilots performing simulated engine-out touch-and-gos will follow normal four-engine takeoff procedures.

4.13.5.6. No passengers on board. Do not consider Flight Crew Training (FCT) contract instructors in direct support of training and operations as passengers for this restriction.

4.13.5.7. ACs/FPs/CPs certified to do so by their SQ/CC, may accomplish simulated engine-out missed approaches, go-arounds, and full-stop landings in VMC (day or night) without IP/SEFE supervision.

4.13.5.8. All planned simulated engine-out missed approaches/go-arounds will be initiated no lower than 200 feet height above touchdown.

4.13.5.9. During a simulated engine-out approach, if an unplanned go-around or missed approach is executed, establish symmetrical thrust on all engines when safe and practical.

**4.14. Landing Attitude Demonstrations.** Landing attitude demonstrations may only be accomplished by IP/SEFE's or ACs under IP/SEFE supervision. The following restrictions apply:

4.14.1. Must be accomplished four engine only.

4.14.2. Dry runway only.

4.14.3. Flaps 40 or 50 only.

4.14.4. Normal dry runway touch-and-go conditions and restrictions apply.

4.14.5. Go-around will be initiated if aircraft touches down during the initial roundout.

4.14.6. Go-around will be initiated with no less than 4,000 feet of runway remaining.

**4.15. Simulator Only Maneuvers.** The following maneuvers will be practiced in the flight simulator only:

- 4.15.1. Aborted takeoff.
- 4.15.2. Engine failure(s) during takeoff and/or climbout to traffic pattern altitude.
- 4.15.3. Two-engine operations (cruise, approach, go-around, and/or landing).
- 4.15.4. Three-engine rudder boost out operations (cruise, approach, go-around, and/or landing).
- 4.15.5. Initial Buffet/Stick Shaker Recovery.
- 4.15.6. Unusual Attitudes.
- 4.15.7. Flaps-up landing and touch and go.

**4.16. Occupancy of Flight Crew Duty Positions:**

- 4.16.1. ACs and FPs may perform their duties from either seat. CPs must be certified by the SQ/CC in order to perform duties in the AC position during critical phases of flight and then may do so only under IP/SEFE supervision.
- 4.16.2. During non-critical phases of flight, if the AC or CP leaves the flight deck, the FE position must be occupied by a qualified FE or be supervised by an instructor/SEFE FE.
- 4.16.3. During critical phases of flight or simulated/actual emergencies, unqualified pilots or pilots not in training to achieve qualification in the E-3, will not occupy any flight crew duty position. Rated pilot General/Flag officers flying under provisions of MAJCOM guidance are exempt. Waiver authority is MAJCOM/A3.

**4.17. Midair Collision Avoidance:**

- 4.17.1. Man all flight deck seats below 10,000 feet mean sea level (MSL) to the maximum extent practical. Crews will maintain an IFR clearance for separation and use autopilot whenever practical. The navigator and pilots will use the weather radar when possible to search for traffic. The observer, when available, will be on headset and actively scan for traffic.
- 4.17.2. Make seat changes for the AC or CP position with the autopilot and altitude hold engaged if practical. Initiate seat changes while stabilized in the IFR traffic pattern or above 10,000 feet MSL. Emphasize clearing during the seat change.
- 4.17.3. TCAS operation will be IAW AFI 11-202V3.

**4.18. Equipment on the Flight Deck.** Hold crew equipment and publications on the flight deck to a minimum commensurate with mission requirements. Stowed equipment must not prevent rapid egress from the flight deck.

**4.19. In-flight Meals.** The AC and CP should not eat meals at the same time and their meals should consist of different menu items if prepared by the same flight kitchen or organization.

**4.20. Fuel Requirements.** For planning purposes, fuel reserves on all flights will be 18,000 pounds over the destination (or alternate when required) initial approach fix, or IAW AFI 11-

202V3, whichever is greater. Fuels listed herein are minimum required fuels. The PIC may plan to arrive overhead with more fuel based on the dynamics of the mission (e.g. weather enroute, airport environment, etc).

4.20.1. Fuel required at the initial approach fix at the original destination will allow a penetration and one approach, then climb to optimum altitude and arrival over the alternate initial approach fix with 18,000 pounds of fuel or greater.

4.20.2. Minimum landing fuel for flights on an IFR clearance is 15,000 pounds. "Minimum Fuel" will normally be declared to the controlling agency when it is determined the aircraft may land at the intended destination with 15,000 pounds of fuel remaining or less. However, if the destination airfield is VFR, and after the aircraft is established in the airfield's radar and/or visual traffic pattern, practice approaches and landings may be conducted until 12,000 pounds of fuel remain, provided CG limits are not exceeded or weather conditions deteriorate below VFR.

4.20.3. "Emergency Fuel" will be declared to the controlling agency when it is determined the aircraft may land at the intended destination with 10,000 pounds of fuel or less.

4.20.4. When mission requirements dictate and when specifically approved by the applicable group commander, fuel reserves may be reduced (provided they meet or exceed AFI 11-202V3 requirements) to the following:

4.20.4.1. Initial Approach Fix. 12,000 pounds.

4.20.4.2. Minimum Fuel. 10,000 pounds.

4.20.4.3. Emergency Fuel. 8,000 pounds.

**4.21. Aircraft Ground Refueling.** FEs are authorized to refuel the aircraft at bases where E-3 maintenance support is not available. When refueling/defueling aircraft, FEs will comply with T.O. 1E-3A-2-7-5CL-1, *Refueling and Defueling*, T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding* and T.O. 1E-3A-2-7, *Ground Handling-Servicing and Airframe USAF Series E-3B and E-3C*.

4.21.1. Anytime adequate portable fire fighting equipment is unavailable or any condition listed under Abnormal Conditions, Section 1, T.O. 00-25-172 exists, the FE will notify the local fire department. The fire department will be informed of the abnormal condition and parking spot/location of aircraft. The FE should be informed by the fire chief of the estimated response time or if a standby fire truck needs to be in position prior to servicing. Communication capability will be immediately available.

4.21.2. In the event base support is limited or nonexistent, other crewmembers may be used as refueling team members at the discretion of the AC. The flight engineer will brief all team members on the use of fire equipment, safety precautions, and emergency shutdown procedures.

**4.22. Fuel Jettisoning.** Conduct fuel dumping only to reduce gross weight in an emergency or for operational necessity. When circumstances permit, dump above 5,000 feet AGL over unpopulated areas or in designated fuel dump areas. Advise the appropriate air traffic control agency of intentions, altitude, and location when fuel is jettisoned and when the operation is complete. Make the appropriate entry on the AFTO Forms 781A/H, *Aerospace Vehicle Flight Status and Maintenance Document*.



**4.23. Aircraft Interior Lighting.** During ground/flight operation, it is recommended to keep flight deck lighting at the lowest practical level. During night parking, do not use the high level flight deck lighting until after the aircraft is chocked and brakes are released. This will allow the pilots to ensure that the aircraft does not roll.

**4.24. Inflight Engine Failure.** During peacetime training missions, if an engine is shutdown in flight, terminate the mission and land as soon as practical, IAW TO 1E-3A-1. During contingency operations, if an engine is shutdown in flight, mission requirements may necessitate continuing the sortie unless safety of flight is compromised.

**4.25. Inflight Troubleshooting.** After flight manual emergency procedures are complete, aircrews will not conduct in-flight troubleshooting.

**4.26. Flight Control Malfunctions:**

4.26.1. The following procedures will be adhered to when maintenance "redballs" for primary flight control malfunctions during preflight or ground operations. The AC along with maintenance personnel will evaluate the malfunction and determine appropriate actions necessary to provide an airworthy aircraft. If the malfunction cannot be isolated to a particular part and repaired within a suitable amount of time, the aircraft will be returned to maintenance for repair.

4.26.2. Inflight, if a primary flight control malfunction is experienced, the flight crew will perform the appropriate flight manual procedures, terminate the mission, and land as soon as practical, IAW T.O. 1E-3A-1.

**4.27. Divert Charts.** Units will develop divert charts to cover their local operating areas and publish them in their local chapter to this instruction. Information contained on these charts should include divert airfields, headings, distances, flight times, fuel requirements, and cruise altitudes. Carry divert charts on all flights.

**4.28. Air-to-Air Refueling Restrictions/Procedures:**

4.28.1. AAR Refueling procedures will be conducted IAW ATP 56 (B), *Air-to-Air Refuelling*, and national annexes. Plan to AAR with a center of gravity forward of 32% MAC. AAR can be accomplished outside of these limits provided it is thoroughly briefed prior to conducting AAR.

4.28.2. For all normal operations, the gross weight inflight with flaps up will be limited to the maximum gross weight versus altitude for a 2.5G load factor IAW TO 1E-3A-1, Section 5. Use of gross weights versus altitude for a 2.0G load factor require applicable group commander approval.

4.28.3. Do not accomplish AAR during training missions when any conditions are encountered which, in the opinion of the AC or boom operator, result in marginal control of the aircraft or the boom.

4.28.4. Do not accomplish AAR if any primary flight control malfunctions are encountered or with the series yaw damper inoperative.

4.28.5. Do not accomplish AAR without tanker disconnect capability, to include manual boom latching, unless an actual fuel emergency or operational necessity exists.

4.28.6. Boom Envelope Demonstrations will be conducted under IP/SEFE supervision. The boom operator will initiate and ensure disconnect capability before demonstrating limits IAW ATP-56(B).

4.28.7. Non-AAR qualified FPs are authorized to fly the aircraft up to and including precontact from either the right or left seat with an AC in the other seat, but must not close to the contact position unless under IP/SEFE supervision. AAR qualified FPs are authorized to fly the aircraft up to and including contact from either the left or right seat with an AC in the other seat. Non-AAR qualified CPs are authorized to fly the aircraft up to and including precontact from the right seat with an AC in the left seat, but will not close inside precontact unless under the supervision of an IP/SEFE. AAR qualified CPs are authorized to fly the aircraft up to and including contact from the right seat with an AAR current AC in the left seat. CP AAR from the left seat will be conducted under IP/SEFE supervision.

4.28.8. ACs/CPs undergoing initial qualification or upgrade training may conduct a rendezvous up to 1 NM from the tanker without IP/SEFE supervision.

4.28.9. To allow time to establish communications with ATC, discontinue air refueling at least 3 minutes prior to the end of track and descend to the bottom of the block.

4.28.10. Loss of Radio Contact. If contact is not established or is lost between tanker and the E-3 on the allocated AAR frequency, follow "Loss of Radio Contact" guidance IAW ATP 56(B).

**4.29. Post AAR Procedures.** Use the following procedures after completion of air refueling to achieve safe separation from the tanker:

4.29.1. The receiver pilot will maintain stabilized in the contact position while asking for or initiating a disconnect and will remain stabilized until confirming either visually or verbally that the boom is clear.

4.29.2. After confirmation that the boom is clear, the receiver pilot will begin to move aft to the pre-contact position. Once this separation has been attained, the receiver pilot will begin a slow descent at approximately 500 to 1,000 feet per minute (fpm) and establish a power setting that will ensure increased vertical separation and avoid under-running the tanker during descent.

4.29.3. The pilot will establish a minimum of 1,000 feet vertical separation between the receiver and the tanker. Do not make any turns from the established air refueling heading during the descent phase.

4.29.3.1. Establish 1,000 feet vertical separation and engage autopilot (if available) before initiating the post-air refueling checklist. Slipway doors may be closed to reduce cockpit noise levels. The autopilot circuit breaker may be reset if opened prior to air refueling.

4.29.3.2. To ensure safe separation during the separation maneuver, the pilot not in control of the airplane and the navigator will monitor the positions of all tankers in the formation by whatever means possible (visual, weather radar, air-to-air TACAN, etc.).

4.29.3.3. If the receiver cannot descend to establish the required vertical separation, the receiver will move back to the precontact position and request the tanker initiate a climb to obtain a minimum of 1,000 feet vertical separation.

**4.30. Formation Restrictions.** The enroute cell and air refueling formations described in ATP-56(B) are the only authorized formations. Crews will only fly these formations when specifically tasked, using the procedures published in the appropriate tech orders.

**4.31. Abnormal Configurations.** Do not fly missions with known abnormal configurations unless approved by the applicable group commander. Abnormal configurations can include a six or seven brake only operation, partial spoilers, inoperative antiskid, etc.

**4.32. Three-Engine Ferry Flights.** Do not conduct three engine ferry flights unless specifically approved by applicable MAJCOM/A3.

## Chapter 5

### MISSION CREW OPERATING PROCEDURES

#### 5.1. E-3 Missions:

##### 5.1.1. E-3 Tactical Mission:

5.1.1.1. The E-3 is a primary airborne element of the Theater Air Control System (TACS). Specific mission taskings, to include functioning as a Control and Reporting Center (CRC), will be determined by the Joint Force Air Component Commander (JFACC). The E-3 may be responsible for:

5.1.1.1.1. Surveillance within its assigned area of responsibility (AOR).

5.1.1.1.2. Detecting and assessing potential threats and passing threat calls.

5.1.1.1.3. Forwarding accurate and timely surveillance data to the CRC/Air Operations Center (AOC) and crosstell appropriate surveillance data to adjacent command and control facilities.

5.1.1.1.4. Identification of traffic in areas without existing ground identification authority or when ground identification facilities are degraded and not capable of providing the identification function.

5.1.1.1.5. Issuing of scramble orders or airborne orders in the absence of ground tactical air control system (GTACS) or when authority is delegated by the AOC.

5.1.1.1.6. Commitment of defensive counterair weapons. This may be self-initiated or directed by a AOC/CRC.

5.1.1.1.7. Maintaining status of available weapons and equipment.

5.1.1.1.8. Airspace regulation and control within an assigned control area.

5.1.1.1.9. Maintaining continuous communications with other airspace control agencies.

5.1.1.1.10. Relaying information/instructions from the AOC, CRC, and other elements of the TACS (i.e. Joint Surveillance Target Attack Radar System [JSTARS]) to airborne aircraft.

5.1.1.2. When the primary or alternate AOC is inoperative, the JFACC may direct an E-3 to continue to manage tactical air operations until the AOC becomes operational. Under this condition, additional E-3 responsibilities may include voice coordination with Army, Navy, Allied units, and Air Support Operations Centers (ASOCs).

5.1.2. E-3 North American Aerospace Defense Command (NORAD) Missions. The NORAD strategic air defense mission covers three roles: air sovereignty, tactical warning, and atmospheric defense. Air sovereignty is the peacetime policing of the combined US/Canadian sovereign airspaces to ensure that all air traffic using the airspace complies with national regulations. The second role of tactical warning includes detecting, characterizing, and assessing potential threats. The third role is the wartime role of

atmospheric air defense against an enemy threat or attack. NORAD performs these roles by integrating a variety of sensor equipment, communications, aircraft, and facilities.

5.1.3. E-3 Counter Narcotics Terrorism. The E-3 counterdrug (CD) mission is to assist national agencies in interdiction of suspected drug traffic IAW command directives.

5.1.4. Joint Tactical Air Operations (JTAO). Integration and coordination among all C2 units deployed to a particular theater is paramount for effective JTAO operations. JTAO operations are defined in the *JTAO Procedural Handbook*. E-3 crews must be fully trained to execute the Air Tasking Order (ATO), Airspace Control Order (ACO), and Operation Task Link (OPTASKLINK) in a joint environment to ensure proper force management and control of weapons systems. The entire system is dependent upon the effective use and control of data links. E-3 crews must understand their role within the joint data network and how their data can both aid and hamper JTAO. CJCSM 3115.01A, *Joint Data Network Operations*, outlines the duties of the Joint Information Coordination Center (JICC) and how the multi-link network is to be administered. E-3 crews will operate data link equipment IAW CJCSM 6120.01C, *Joint Multi-Tactical Data Link (TDL) Operating Procedures*, and the written guidance of the Joint Interface Control Officer (JICO) (i.e. OPTASKLINK, OPTASK ID Supp, Tactical Operation Data (TACOPDAT)). During missions, the crew will adhere to the directions of the joint, regional, or sector interface control officers (J/R/SICO). Coordination will be performed on the assigned interface control net (ICN)/data link coordination net (DCN) and track supervision nets (TSN). All E-3 crewmembers participating on these nets must be familiar with directed net procedures and follow the directions of the net control station (NECOS).

## 5.2. Responsibilities:

### 5.2.1. Battle Management

5.2.1.1. Mission Crew Commander. The MCC is responsible to the appropriate commander for the safe, efficient and successful conduct of the E-3s air battle. The MCC is responsible for the leadership, management, supervision, and training of the mission crew. The MCC will:

5.2.1.1.1. Notify the AC and mission crew of all situations that could adversely affect safety of flight operations or mission accomplishment.

5.2.1.1.2. Execute command directives and perform battle management functions as required, to include transmitting, receiving, authenticating and executing command messages.

5.2.1.1.3. Be responsible to the appropriate command authorities for the application and execution of applicable operations orders (OPORDs), OPLANS, ATO, OPTASKLINK, special instructions (SPINS), ROE and other theater specific command directives involving E-3 employment.

5.2.1.1.4. Ensure the mission crew and flight crew are thoroughly briefed and prepared to meet mission tasking.

5.2.1.1.5. Have a thorough understanding of the capabilities and tactics of hostile and friendly forces.

- 5.2.1.1.6. Ensure mission systems are configured and the database information is current and correct to meet mission tasking. Supervise the communications, data processing and display, and sensor system functions to ensure effective support of mission objectives.
  - 5.2.1.1.7. Coordinate and manage the air battle with appropriate command authorities and direct tactical action IAW theater ROE.
  - 5.2.1.1.8. Coordinate with the AC on tactical positioning of the E-3 to ensure safe and efficient mission execution.
  - 5.2.1.1.9. Manage the orderly transfer of database information and station responsibility.
    - 5.2.1.1.9.1. Declare ops normal when all mission systems required to accomplish the assigned mission are operational.
    - 5.2.1.1.9.2. Declare on station when all mission systems required to accomplish the assigned mission are operational, the E-3 is in position to accomplish the assigned mission, and the mission crew have completed their minimum station assumption requirements.
    - 5.2.1.1.9.3. Notify the appropriate command authorities of the “ops normal/on station” calls, and other theater specific calls as specified by directives and any deviations from mission tasking.
  - 5.2.1.1.10. Thoroughly assess equipment malfunctions and determine impact on the assigned mission. Coordinate with the AC to assess the risk of continued use against safety and integrity of the aircraft, and mission accomplishment. The AC is the final authority and is responsible for the safety of the aircraft.
  - 5.2.1.1.11. Approve/coordinate downtime for scheduled/unscheduled maintenance.
  - 5.2.1.1.12. Debrief the crew, appropriate command authorities and unit agencies as required by theater directives.
  - 5.2.1.1.13. Ensure all required mission forms/reports are completed and turned in to the appropriate agencies/offices as required.
- 5.2.2. Surveillance. The Air Surveillance Officer (ASO), the Senior Surveillance Technician (SST), and the Air Surveillance Technician (AST) perform the surveillance functions.
- 5.2.2.1. Air Surveillance Officer. The ASO is responsible to the MCC for all surveillance functions. The ASO will:
    - 5.2.2.1.1. Monitor and direct the accurate collection, display, and dissemination of surveillance data.
    - 5.2.2.1.2. Direct and/or coordinate the tracking and identification of all observed activity within designated areas.
    - 5.2.2.1.3. Analyze the surveillance situation and advise the MCC of surveillance capabilities.

- 5.2.2.1.4. Notify the MCC whenever Electronic Attack (EA) is experienced and coordinate Electronic Protection (EP) actions.
- 5.2.2.1.5. Notify the MCC and SD of any suspected emergency IFF/selective identification feature (SIF) returns or triangular distress patterns.
- 5.2.2.1.6. Document all radar/IFF electronic combat (EC) training events on applicable forms and forward them to the squadron Weapons and Tactics office.
- 5.2.2.1.7. In conjunction with the SST, coordinate with external agencies to ensure accurate multi-link operations IAW J/R/SICO guidance. The ASO will coordinate any datalink modifications (filters, duties, ID usage) with the JICO to ensure there are no impacts to the link architecture. Concurrent operations will not be used unless specifically mentioned in the OPTASKLINK or directed by the JICO.
  - 5.2.2.1.7.1. Implement changes in interface configuration as directed.
  - 5.2.2.1.7.2. Implement data link filters as stated in the OPTASKLINK or TACOPDAT. Any changes to filters must be approved by the JICO.
  - 5.2.2.1.7.3. Utilize the ICN and DCN to coordinate with J/R/SICO and other multi-link participants using directed net procedures if required by the NCS.
  - 5.2.2.1.7.4. Monitor track exchange (surveillance, weapons, and ES) and coordinate with SST, SD, and ECO if required.
  - 5.2.2.1.7.5. Provide recommendations to JICO for data link changes. Forward changes to E-3 initial exchange requirements (IERS) to the JICO through the appropriate agency (i.e., MPT, OSXR, OSOE, etc.).
- 5.2.2.1.8. Assign and supervise SST and AST responsibilities.
- 5.2.2.1.9. Monitor and maintain sensor quality for mission duration.
- 5.2.2.1.10. Ensure surveillance team members receive maximum training from available resources including simulation (SIM).
- 5.2.2.2. Senior Surveillance Technician. The SST is a supervisory position responsible to the ASO and will provide assistance as required. The SST will:
  - 5.2.2.2.1. Supervise the detection, tracking, reporting, identification, and recording of surveillance data.
  - 5.2.2.2.2. Ensure the completion of AST duties.
  - 5.2.2.2.3. Monitor sensors in the assigned areas, notify the ASO of any unusual presentations.
  - 5.2.2.2.4. Coordinate with the ASO/CSO or CT, as required, in the establishment and operation of data links.
  - 5.2.2.2.5. Notify the ASO of any suspected emergency IFF/SIF returns or triangular distress patterns.
- 5.2.2.3. Air Surveillance Technician. The AST is responsible for surveillance functions as directed by the ASO/SST. The AST will:

5.2.2.3.1. Initiate on all data trails appearing within the assigned AOR and ensure continuity of tracking.

5.2.2.3.2. Upon receipt of voice told tracks, monitor telling source and enter that track data into the computer. On such tracks, monitor sensor data that may correlate and take appropriate action to effect correlation.

5.2.2.3.3. Tell tracks.

5.2.2.3.4. Notify the ASO/SST of all unusual console presentations (e.g. EA, electromagnetic interference (EMI), erroneous computer generated data, etc.). Reporting format will include number and type of strobe(s), effect on Radar EP, bearing, power level, and time of occurrence.

5.2.2.3.5. Notify the ASO/SST of any suspected emergency IFF/SIF returns or triangular distress patterns.

5.2.2.3.6. Initiate and maintain passive tracking when directed by the ASO/SST.

5.2.2.3.7. Assist the ASO/SST with flight plans and other identification functions.

5.2.3. Electronic Combat Officer (ECO). The ECO analyzes Electronic Support (ES) data from on-board and off-board sensors, fuses that data with other on-board data/information, then disseminates a comprehensive ES picture both internally (on-board the E-3) and externally (via data links and communications nets). The ECO is responsible to the MCC for all ES. The ECO will:

5.2.3.1. Monitor the accurate collection, display and dissemination of ES data.

5.2.3.2. Analyze the ES situation and advise the MCC of ES data.

5.2.3.3. Locate, report and log all emitters of interest.

5.2.3.4. Coordinate with external agencies to ensure the accuracy of ES data.

5.2.3.5. The ECO will maintain SA on SEAD capabilities, orbits, and routing to ensure tactical ES mission accomplishment and continuous package threat awareness.

5.2.3.6. Estimate and/or predict the capabilities of hostile forces and friendly forces relative to the Electronic Order of Battle (EOB).

5.2.3.7. Direct and/or coordinate the ES identification of all observed activity within designated areas with all Electronic Warfare (EW) assets.

5.2.3.8. The ECO will perform a systematic checkout of the Passive Detection System (PDS) and brief the MCC on the results. If checkout is satisfactory, PDS will be declared operational.

5.2.4. Weapons. The Senior Director (SD) and Air Weapons Officer (AWO) perform the weapons function. They are responsible for the direction, monitoring, and flight following of assigned aircraft during tactical and air refueling missions, both operational and training. They are responsible for extracting data from OPORDS, OPLANS, and other theater and command directives for E-3 employment and weapons mission execution.

5.2.4.1. Senior Director. The SD is responsible to the MCC for conduct of the air battle and for the control of all assigned aircraft and weapons systems. The SD will:



- 5.2.4.1.1. Supervise all AWO activities.
- 5.2.4.1.2. Maintain data on friendly and enemy orders of battle and coordinate with the ECO on any correlation with Tactical Site Files (TSF).
- 5.2.4.1.3. Estimate and/or predict the capabilities of hostile forces, develop **a plan or plans** which organize friendly counter forces, and defeat/negate the threat.
- 5.2.4.1.4. Maintain current and accurate tactical situation, weapons, weather, airbase status, and other situational information.
- 5.2.4.1.5. Maintain force accountability of all friendly assets assigned for control.
- 5.2.4.1.6. Coordinate the air battle with appropriate agencies.
- 5.2.4.1.7. Direct the pairing of weapons against assigned targets.
- 5.2.4.1.8. Coordinate directly with the ASO to obtain surveillance support and optimum sensor quality and the ECO to obtain status of EW assets and optimum sensor configurations.
- 5.2.4.1.9. Coordinate with other agencies to ensure the accomplishment of all assigned weapons missions.
- 5.2.4.1.10. Notify the MCC and ASO of any suspected emergency IFF/SIF returns or triangular distress patterns.
- 5.2.4.1.11. Ensure weapons team members receive maximum training from available resources including SIM.
- 5.2.4.1.12. Develop and maintain the communications worksheet for the weapons section. Responsibility for the master communications worksheet may also be the responsibility of the SD if delegated by the MCC.
- 5.2.4.2. Air Weapons Officer/Weapons Director. The AWO is responsible to the SD for the control and safe regulation of air traffic for all assigned missions. The AWO will:
  - 5.2.4.2.1. Locate, identify, and track aircraft assigned for control.
  - 5.2.4.2.2. Control aircraft against assigned targets.
  - 5.2.4.2.3. Ensure orderly and expeditious recovery of assigned aircraft.
  - 5.2.4.2.4. Coordinate with internal and external agencies, as applicable, on matters pertaining to flight safety/mission accomplishment.
  - 5.2.4.2.5. Direct air refueling missions consistent with prescribed emissions control (EMCON) procedures.
- 5.2.5. Battle Director Technician (BDT).
  - 5.2.5.1. BDT Responsibilities. The BDT is responsible to the MCC for receiving and communicating message traffic concerning Emergency Action Messages (EAM)/Quick Reaction Messages (QRM) and Tabular Reports (TABs). The BDT will:
    - 5.2.5.1.1. Ensure NORAD support equipment is aboard the AWACS and will coordinate communications/radios with the mission crew.

5.2.5.1.2. Orient the mission crew with NORAD C2 functions and identify responsibilities and authorities of NORAD assigned AWACS missions. The mission crew may be augmented with NORAD personnel, based on tasking and mission requirements.

5.2.6. Communications. The communications function is performed by the Communications Technician (CT) and the Communications Systems Operator (CSO).

5.2.6.1. The CT is responsible to the AC/MCC for the proper maintenance and operation of flight and mission crew communications and related equipment. The CT will:

5.2.6.1.1. Evaluate equipment status of the Communications Functional Group (CFG) and advise the MCC of its capabilities to support mission requirements.

5.2.6.1.2. Configure, operate and monitor Joint Tactical Information Distribution System (JTIDS) equipment and software.

5.2.6.2. The CSO is responsible to the AC/MCC for proper programming management and operation of flight and mission crew communications systems. The CSO will:

5.2.6.2.1. Tune, configure, and operate clear and secure voice communications systems and communication nets to support mission requirements.

5.2.6.2.2. Configure and operate Link-11 equipment and software.

5.2.6.2.3. Perform frequency management; recommend and make required communications changes.

5.2.6.2.4. Compile and transmit required inflight and position reports to appropriate facilities.

5.2.6.2.5. Coordinate, obtain, use, and control COMSEC material and equipment.

5.2.7. Computer Display Maintenance Technician (CDMT)

5.2.7.1. CDMT responsibilities. The CDMT is responsible to the MCC for the operation, monitoring, and limited inflight maintenance of the Data Processing, Data Display, Onboard Test Monitor and Maintenance functional groups and ES Measures Group (ESMG). The CDMT will:

5.2.7.1.1. Perform loading of the Data Processing System, auxiliary system(s), and monitor the performance of the Data Processing System, Data Display System, auxiliary system(s). The CDMT will also perform Onboard Test Monitor and Maintenance Groups using fault indications, ESM, and software messages displayed at the Computer Technician console.

5.2.7.1.2. Monitor the status of mission avionics equipment tested by the computer for efficient operation.

5.2.7.1.3. Service the Data Processing peripheral equipment.

5.2.7.1.4. Perform diagnostic maintenance programs.

5.2.7.1.5. Perform inflight troubleshooting and fault isolation.

5.2.7.1.6. Perform replacement of modules as required.

5.2.7.1.7. Perform utilities programs.

5.2.8. Airborne Radar Technician (ART) The ART is responsible to the MCC for the operation and maintenance of the radar and IFF systems and their subsystems. The ART will:

5.2.8.1. Initiate and monitor the Surveillance Radar Functional Systems and Identification Functional Systems.

5.2.8.2. Perform radar equipment test (Fault Isolation) routines and other checkouts.

5.2.8.3. Troubleshoot malfunctions in sensor systems and repair or replace equipment as required.

5.2.8.4. Monitor surveillance equipment operating performance levels.

5.2.8.5. Initiate and monitor associated test equipment to optimize performance of sensor systems.

5.2.8.6. During deployment or dispersed base operations, if there is no conflict with flying responsibilities (e.g., crew rest and duty day), the ART will assist ground based personnel with maintenance activities when required.

5.2.8.7. Coordinate with the ASO on radar operating parameters (i.e. dedicated time test azimuth, second-time-around-thresholds, etc.), and on detection, analysis, and response to EA.

### **5.3. Operational Procedures:**

5.3.1. Aircraft Mission Systems History Log Book. Maintain a history log book for each aircraft. Units will develop history log book procedures and ensure log books are readily available. Technicians will review the log book during preflight.

5.3.2. Equipment Malfunctions. The MCC, after coordination with the AC on equipment issues which affect aircraft systems, must approve continued operations of malfunctioning mission equipment that would affect the mission. The MCC will evaluate the impact of using degraded equipment against the mission tasking and the inability to meet that tasking.

5.3.3. Air Surveillance Procedures:

5.3.3.1. Coordination. The ASO will coordinate with the SD, ECO, and MCC to ensure all activity is conducted on an appropriate map. Coordinate Command and Control Coordinate System (CCCS) origin changes with the MCC, CDMT and ECO prior to taking the switch action.

5.3.3.2. Briefings. The ASO/SST will accomplish a surveillance briefing on mission planning day that will cover surveillance information and contracts applicable to the entire mission and/or flight crew. The ASO will also accomplish a surveillance specialized briefing prior to assuming station. As a minimum, this briefing will include surveillance areas not covered in previous briefings and any areas needing extra emphasis, such as individual taskings, surveillance contracts, ROE, symbology and tracking, identification plan, and contingency/emergency duties.

5.3.3.3. Sensor Management/Procedures. Prior to assuming station, the ASO will perform sensor checks to determine the optimum radar/IFF settings for the mission. The

ASO will brief the MCC on the results of the checks and the final radar setup. Sensor check procedures include:

5.3.3.3.1. IFF Sensor Check. Perform a systematic checkout of the IFF, to include all operational Receiver/Transmitters (R/T)s as soon as it becomes available. If equipment malfunctions, the ASO will accomplish an additional check once the unit is back on line. If a previously unchecked R/T unit comes on line, the ASO will again accomplish an additional check. As a minimum, the ASO will check:

5.3.3.3.1.1. Mode IV Test. Perform a mode IV loop test prior to declaring the IFF operational.

5.3.3.3.1.2. Maximum Range. Measure the maximum range of the IFF by determining the range of an IFF sensor return with a consistent (three out of seven returns) data trail.

5.3.3.3.1.3. IFF Jitter. Check in all quadrants, as close as possible to, but not beyond, 250 NM from the E-3. Measure jitter as sideways displacement of returns from a straight-line path. Normally jitter up to 3 NM is acceptable.

5.3.3.3.1.4. Quality. The overall quality of the IFF will be determined by checking consistency of data trails, and when radar becomes available, the mileage difference between the IFF and radar sensor returns. Normally, returns within 2 NM are acceptable. Accomplish this check within a radius of 250 miles from the E-3.

5.3.3.3.1.5. Resolution of IFF Overloads. The ASO will monitor IFF counts and make necessary adjustments to resolve overload conditions and minimize the loss of IFF data.

5.3.3.3.2. Radar Sensor Check. Time permitting, the ASO will check as many RF sets as possible, and select a primary and secondary RF set (preferably not in the same chain). The ASO will use identical radar tabular display settings for each RF set checked for accurate comparison. Radar mode will include both the Doppler and Beyond The Horizon (BTH) radars. A sensor quality check must be made when established in the orbit area if a checkout was made prior to arrival to the orbit area. The radar check will include:

5.3.3.3.2.1. Doppler/BTH Maximum Range. Determine the maximum doppler range from the situation indicator display presentation using data trails with a minimum 40% blip-scan ratio (3 out of 7 scans have radar returns). A single data point, present or history, may be used to determine the maximum BTH range from the situation indicator display presentation.

5.3.3.3.2.2. Quality. Radar quality is determined by the percentage of all IFF returns within a 250 NM radius of the E-3 that have consistent discernible radar data trails. In addition, consider the overall consistency of the radar presentation. Use the following criteria to assess the overall quality of the radar:

5.3.3.3.2.2.1. Good. Greater than 50%.

5.3.3.3.2.2.2. Fair. Between 30 to 50%.

5.3.3.3.2.2.3. Poor. Less than 30%.

5.3.3.3.2.3. System Counts. On applicable form, log the Doppler, BTH, and Mode 3 counts for comparison of radar frequencies. Time of day, operating location, traffic density areas, and radar mode of operation may significantly affect the ratio of these figures.

5.3.3.3.2.4. Sensor Re-Check Procedures. Once the sensors have been initially checked and declared operational, the ASO is *not* required to re-accomplish a full sensor check unless the applicable sensor system is powered down or if the ART accomplishes a Fault Isolation Test (FIT) on the radar system, i.e. after Quality Control (QC). In circumstances such as post-AAR where sensors are transferred but not powered down, the ASO will, at minimum, accomplish a quality check of radar and IFF systems prior to declaring them operational.

5.3.3.3.3. Radar Setup. The ASO must consider the effects of the E-3 flight parameters on sensor performance and attempt to optimize checkout within these constraints. The assessment of overall air picture quality will be the primary factor in determining the optimum RF set.

5.3.3.3.3.1. After selecting the optimum RF set, the ASO will declare the radar operational.

5.3.3.3.3.2. When multiple E-3 flights operate in an area, the ASO will perform frequency deconfliction as required.

5.3.3.4. Data Link Procedures and Operation. Data link is the primary means of passing E-3 information. Establish data links according to, *Joint Multi-Tactical Data Link (TDL) Operating Procedures*, for the JTIDS Network Library for JTIDS and TADIL A during Continental United States (CONUS) operations. Establish data link operations outside the CONUS according to local theater directives and the OPTASKLINK.

5.3.3.5. Assuming Station. ASO will inform MCC of station assumption requirements not yet completed:

5.3.3.5.1. Conduct data base checks as appropriate.

5.3.3.5.2. IFF configured for mission use.

5.3.3.5.3. Configure the radar settings and optimize sensors for maximum detection while maintaining air-picture quality.

5.3.3.5.4. Track initiation on all data trails within the assigned AOR(s).

5.3.3.5.5. Initiate contact with ground control agencies.

5.3.3.5.6. Operational data links(s).

5.3.3.5.7. PDS Download. The ASO is permitted to download PDS when an ECO is not on-board for the purpose of internal crew PDS displays training. Only an ECO will declare PDS operational. (Note: Without an ECO on-board PDS will not be used for such purposes as signal of interest location, coordination and reporting, electronic identification, and threat warning.

5.3.3.6. Voice Tell and Recording Procedures. When the E-3 is in an environment with units not capable of data link interface, use the following voice tell and recording procedures:

5.3.3.6.1. The E-3 will voice tell priority one, two, and three tracks unless the receiving agency directs cease tell. Tell all other priorities on request only. For this purpose, the following priorities have been established:

5.3.3.6.1.1. Priority One. Hostile/Faker.

5.3.3.6.1.2. Priority Two. Unknown/Pending.

5.3.3.6.1.3. Priority Three. Emergencies.

5.3.3.6.1.4. Priority Four. Defensive Counter Air.

5.3.3.6.1.5. Priority Five. VIP Flights.

5.3.3.6.1.6. Priority Six. Special Missions.

5.3.3.6.1.7. Priority Seven. Other tracks as directed by the receiving agency, (for example, Neutralized Fakers). Live tracks have priority over simulated tracks.

5.3.3.6.2. Voice tell will normally be in United States Message Text Format (USMTF) TRKREP format. When it is impossible for the receiving agency to accept tell according to USMTF, use a format agreed upon by both agencies.

5.3.3.7. Electronic Combat Procedures. The ASO will monitor/coordinate EP actions. Use the following procedures:

5.3.3.7.1. The ASO, ECO and ART will coordinate on any unusual sensor activity to determine whether the source is external or internal and type of interface if able. If no explanation can be determined and the source is external, submit an Air Force Spectrum Interference Reporting System (AFSIRS) report.

5.3.3.7.2. Make every effort in an EA environment to obtain active data on all EA targets. Whenever possible, use cooperative passive tracking. If cooperative support is not available, use self-passive tracking.

5.3.3.7.3. When self-triangulating, to determine if one of several previously active tracking returns is a suspected EA emitter, the AST will extrapolate the suspected track on its last known heading, speed and altitude, before initiating a passive track. If two tracks are used, the ASO will coordinate with the MCC and SD to ensure proper weapons commitment.

5.3.3.7.4. The ASO will keep the MCC and SD advised on status of passive tracks. When the ASO is confident that the passive track has correlated with the jammer's location, notify the SD that the track has "stabilized" and enable display to weapons consoles. In the event of burn-through, the ASO, in coordination with the MCC and IAW ROE, may "validate" the track as a jammer and associate the symbology with active data.

5.3.3.8. Identification. When the E-3 is granted ID authority, the ASO will use all available capabilities and resources to ID tracks within its AOR according to the theater

ID Matrix (Note: PDS will not be used for identification purposes without an ECO to declare the system operational). The MCC will retain hostile declaration authority.

#### 5.3.4. Weapons Procedures:

5.3.4.1. Station Assumption. Prior to assuming station, the SD will:

5.3.4.1.1. Contact FAA/Air Route Traffic Control Center (ARTCC) or ground monitor/control authority, and complete a sensor correlation check as required.

5.3.4.1.2. Check all weapons assigned radio frequencies for usability.

5.3.4.1.3. Check data base accuracy.

5.3.4.2. On-Station Procedures. Procedures will be according to the operational procedures contained in this instruction and specific mission directives.

5.3.4.3. Off-Station Procedures. The SD will compile controlled aircraft mission totals and furnish this data to the MCC. The SD will pass totals to the ground monitor if requested/directed.

5.3.4.4. SD Control Procedures. The SD may control aircraft during a mission after coordination with the MCC and when simultaneous missions are not in progress.

5.3.4.5. Handoff Procedures. Handoff procedures IAW applicable FAA Letters of Agreement. The SD or a designated AWO will monitor the handoff frequency at all times when performing station assumption duties and while on station.

5.3.4.6. Controlled Aircraft Emergency Procedures. For aircraft with in-flight emergencies, the SD/AWO performing the handoff will use the word "Emergency" at the beginning and ending of transmissions to the recovery agency. In the event of an emergency being declared by an aircraft under E-3 control, the AWO will refer to their Aircrew Aids, "Controlled Aircraft Emergency Procedures."

5.3.4.7. Control Procedures. On-station control procedures will be IAW AFI 11-214, *Aircrew and Weapons Director Procedures for Air Operations*.

5.3.4.8. Airspace. Use of airspace will be IAW Air Traffic Control Management/Airspace Control directives.

5.3.4.9. Distressed Aircraft. Report any suspected or triangular distress patterns to the SD.

5.3.4.10. Symbology. During all operations, AWOs will ensure symbology and sensor data of controlled aircraft are within 2 NM of each other. Weapons pairings to Combat Air Patrol (CAP), air-to-air intercept, and ground targets should be accomplished as briefed IAW mission TDL employment.

#### 5.3.5. Communications Procedures:

5.3.5.1. Radio Procedures. Adhere to communications discipline at all times. All crewmembers will use proper International Civil Aviation Organization (ICAO) phrases, phonetic alphabet, and R/T procedures outlined in ACP 121, US Sup 2 (*Communications Instructions, General-Air-Ground*).

5.3.5.2. Priority of Message Transmissions. The E-3 aircrew, while in flight, will transmit messages according to the following priority:

5.3.5.2.1. Flight Safety.

5.3.5.2.2. Command and Control Information.

5.3.5.2.3. Flight Regularity.

5.3.5.3. Phone Patches. Units will establish phone patch procedures in their local chapter.

5.3.5.4. Call Signs. Always use the aircraft callsign when transmitting messages of Flight Safety, aircraft movement, and radio calls required by this instruction. Mission crewmembers will use the mission crew call sign when communicating with the respective controlling or monitoring agency, aircraft under their control, or as fragged/briefed. The CSO will brief crewmembers on call signs to use when providing alternate communications.

5.3.5.5. UHF/VHF Guard Monitoring Procedures. The MCC will ensure the mission crew monitors VHF and UHF guard frequencies. The MCC, SD, ECO, and AWOs will have UHF guard receive/transmit programmed to their consoles. While aircraft are under control by the mission crew, the SD will designate at least one weapons crewmember to monitor UHF guard. The ASO, SST, and ASTs will have VHF guard programmed to their consoles. The ASO will designate at least one surveillance crewmember to monitor VHF guard while the E-3 is on station.

#### 5.3.6. Mission Crew Intercom Procedures:

5.3.6.1. The primary means of coordination for the mission crew will be via the programmed mission nets.

5.3.6.1.1. Coordinate net assignments/deviations through the MCC.

5.3.6.1.2. Maintain strict net discipline. Limit conversation to operational matters.

5.3.6.2. Use the ADS selective intercom system for information that is unclassified, lengthy in nature, and/or person-to-person conversations.

5.3.6.3. The PA system is for use in emergencies and practice emergencies. Except for emergency checklist items, use of the PA by mission crew is restricted to the MCC.

#### 5.3.7. Special Interest Track Procedures:

5.3.7.1. A special interest track is any track that requires priority handling by the mission crew.

5.3.7.2. The E-3 will not depart orbit or working area to continue monitoring the special interest track unless directed by the command authority exercising E-3 Tactical Control (TACON). Any instructions that are directive for the E-3 (i.e., leave/move orbit, changes in level of decentralization, etc.) will be authenticated by the MCC/Battle Director Technician (BDT).



5.3.7.3. The MCC will:

- 5.3.7.3.1. Ensure the ASO assigns tracking responsibilities for the special interest track.
- 5.3.7.3.2. Ensure the SD monitors the special interest track for possible intercept actions.
- 5.3.7.3.3. Coordinate with the ASO and flight crew to maintain the special interest track within the E-3 surveillance limits (orbit location).
- 5.3.7.3.4. Coordinate E-3 airspace changes (orbit location) with the flight crew, as required.
- 5.3.7.3.5. Ensure the ECO monitors the special interest track for possible ID correlation.

5.3.7.4. The ASO will:

- 5.3.7.4.1. Give priority attention to the special interest track and assign it to an AST as a specific responsibility.
- 5.3.7.4.2. Ensure the AST places the track in debriefing status, logs the time, track number, and ID on the appropriate forms.

5.3.7.5. The SD will:

- 5.3.7.5.1. Monitor the progress of the special interest track and conduct any tactical action on the track as directed.
- 5.3.7.5.2. Scramble and/or direct aircraft for intercept as directed/necessary.
- 5.3.7.5.3. After the accomplishment of the intercept, inform the MCC/ground monitor facility of any required information.
- 5.3.7.5.4. Coordinate with the proper ground unit for recovery of the interceptors.

5.3.7.6. The ECO will monitor the special interest track and make every effort to correlate all electronic signals emanating from the track. Log and/or hard copy, if available, all Augmented Report tabular displays (TDs) for emitters correlated to the track. If an ID can be derived from the correlated emitters this information will be passed to the ASO, SD, and MCC.

5.3.8. Sensor Correlation:

5.3.8.1. If control of aircraft is anticipated, accomplish a weapons correlation check prior to assuming station if required by LOA or as specified in FAA Order JO 7610.4M, *Special Military Operations*, if acting as an Military Radar Unit (MRU). If the E-3 mission is surveillance only, the surveillance section will perform the check with the appropriate automated/manual tell agency(ies).

5.3.8.2. Perform an IFF only correlation check if:

- 5.3.8.2.1. The ASO subsequently correlates IFF to radar sensor returns, or,
- 5.3.8.2.2. IFF only on-station operations are authorized according to this instruction and theater operating instructions.

5.3.8.3. Coordinate procedures with the responsible MRU prior to assuming station when operating as an Airborne Radar Unit (ARU).

5.3.8.4. When operating in Canada, the E-3 will comply with the DOT/DND agreement (short title, "AWACS Agreement") between Director General Air Doctrine and Operations Department National Defense, and Director Air Traffic Services Department of Transportation.

5.3.8.5. The following procedures apply to sensor correlation checks required by surveillance:

5.3.8.5.1. Minimum of two tracks within the Air Defense Identification Zone (ADIZ), preferably in a non-congested area.

5.3.8.5.2. Voice tell format will include the track number, coordinates, and Mode 3 squawk (if possible). Tracks used must be within 3 NM or less to be considered a good sensor correlation.

5.3.8.5.3. Successful data link correlation checks could be used instead of voice tell checks due to accurate real-time data being passed between both agencies.

#### 5.3.9. Electronic Support Procedures.

5.3.9.1. Coordination. The ECO will coordinate with the MCC, ASO, SD, CDMT, DOW, and Electronic Support Team (EST) to ensure PDS is loaded with an appropriate database. The ECO will also coordinate with the MCC when PDS is downloaded, and operational. In addition the ECO will advise the MCC, CDMT and/or ASO of any system degradation(s).

5.3.9.2. Sensor Management Procedures. Prior to assuming station, the ECO will perform checks on PDS to ensure operational status and determine optimal sensor set-up. The ECO will brief the MCC on the results of these checks.

5.3.9.2.1. PDS. At a minimum, the ECO will check:

5.3.9.2.1.1. Reception in Frequency Range. Check to ensure 360-degree reception of signals within all three bands: low, medium and high. This is a subjective check, but there should be several indications within each band on different azimuths.

5.3.9.2.1.2. Triangulation. Triangulation of a known emitter (like an ATC radar at a civil airport) should be conducted. Once the active emitter file reaches "monitor status," check the location of the triangulated site against the location of the known emitter.

5.3.9.2.1.3. Overload Management. Evaluate any reported overloads and correct as necessary. Overload conditions that cannot be resolved might indicate internal interference and should be corrected IAW established procedures.

5.3.9.3. Data Link Procedures. The ECO should coordinate with the ASO/SST to ensure PDS data link filters are set correctly. The ECO will be responsible for selecting specific emitters to tell out during the mission.

5.3.9.4. Reporting Procedures. Reporting procedures will be IAW AFTTP 3-1.15, Chapter 4.

## Chapter 6 (Added-552ACW)

### 552 ACW & 513 ACG LOCAL OPERATING PROCEDURES

#### 6.1. (552ACW) General.

6.1.1. **(552ACW) Waivers.** The procedures and requirements contained in this supplement will not be waived or altered unless approved by the 552 ACW/CC or designated representative, or the applicable group commander or designated representative. Aircraft emergencies or operational necessity may dictate exceptions. Waivers (see Attachment 26) will be routed through 552 OG/OGV or through 513 ACG/OGV, as appropriate.

6.1.2. **(552ACW) Recommended Changes.** Submit recommended changes on AF Form 847, Recommendation for Change of Publication, to 552 OG/OGV or 513 ACG/OGV.

#### 6.1.3. (552ACW) Terms.

6.1.3.1. **(552ACW) Ops Normal** (for combat training sorties) is defined as having operational the minimum sensors and communication capability required to perform the assigned mission. For operational/contingency sorties, the gaining Commander will define “Ops Normal” requirements.

6.1.3.2. **(552ACW) On-Station** (for combat training sorties) is defined as ops normal and in position to cover the assigned AOR/weapons working airspace(s). For operational/contingency sorties, the gaining Commander will define “On Station” requirements.

6.1.3.3. DELETED.

#### 6.1.4. (552ACW) Squadron leadership.

6.1.4.1. **(552ACW) Squadron leadership** (CC, CD, DO) will make every effort to achieve an appropriate crew composition for all CONUS operational missions and HHQ exercises (RED FLAG, GREEN FLAG etc.). Overall experience levels should achieve an optimal crew experience level, nominally a 35% mixture within each section (i.e., flight crew, weapons, etc...). The Aircrew Experience Form will be presented at the DO briefing. Squadrons will notify OG leadership if they determine that crew experience level for any section will fall below the nominal experience level.

6.1.5. **(552ACW) Squadron Operations Officer Responsibilities.** The SQ/DO will ensure:

6.1.5.1. **(552ACW)** Base weather is notified in the event of unscheduled operations.

6.1.5.2. **(552ACW)** Aircrew members scheduled for flights are notified of mission planning time and location.

6.1.5.3. **(552ACW)** Aircrew recall rosters are prepared and current.

6.1.5.4. **(552ACW)** Flight orders are signed. Flight orders will be signed IAW AFI 11-401. SQ/CCs, CD, DOs, ADOs, and Operations Supervisors are authorized to sign flight orders. All SQ/CCs need to submit a letter to the OG authorizing specific individuals to sign flight orders.

6.1.5.5. **(552ACW)** For the purpose of this instruction, any reference to the DO at any level also assumes the deployed DO or expeditionary DO at the same level as appropriate.

**6.1.6. (552ACW) Squadron SARM Responsibilities.** The SQ/SARM will:

6.1.6.1. **(552ACW)** Process “flight order request form(s)” and prepare the flight training review documents for AC review NLT close of business on the duty day prior to scheduled mission planning. For contingencies and operational deployments, the documents will be prepared as directed and IAW Attachment 4 of this supplement.

6.1.6.2. **(552ACW)** Prepare, maintain, and store separate publications and form kits for both flight and mission crews. SARMS will maintain each kit IAW Attachment 5 and Attachment 6 of this supplement.

6.1.6.3. **(552ACW)** Issue and store NORAD Mission Kits (NMKs). 552 OSS/OSOB (NORAD Battle Staff Operation Center) is responsible for maintaining sufficient numbers of NMKs to support the NORAD mission.

6.1.6.4. **(552ACW)** Maintain and store Flight Information Publications (FLIP) kits for CONUS training sorties, and separate kits for worldwide operations. See Attachment 7 and Attachment 8 for a list of minimum publications required for FLIP kits. The AC will request the SARM add additional forms and FLIP publications, as required.

6.1.6.5. **(552ACW)** The latest FCIF (Vol I Part B, including MAJCOM & NAF items) and current read file items (Vol I Part C & Vol V) will be posted at the SARM office. The SQ/CCV office is responsible for the documents and all updates associated with the FCIF.

**6.1.7. (552ACW) Participation of Non-Ops Squadron Personnel.** 513 Air Control Group (ACG), 552 ACG, Maintenance Group (MXG), Intelligence (552 OG/OGI), and security police personnel who have a requirement to participate on E-3 sorties will coordinate their flight request with the responsible squadrons scheduling office NLT the day prior to mission planning. Individuals on flying status will coordinate with their attached squadron's scheduling office for their routine flying requirements. ACG and MXG will coordinate special requests through the OG.

**6.1.8. Visiting Aircrew Members.** All visiting aircrew requests will be approved IAW AFI 11-401/ACC SUP 1, *Aviation Management*.

6.1.8.1. DELETED.

6.1.8.2. DELETED.

**6.1.9. (552ACW) 552 ACW Go/No-Go Program.** Accomplish the following:

6.1.9.1. **(552ACW)** Pilots and Co-Pilots will accomplish a Bold Face Exam prior to the first flight of each month IAW AFI 11-202V2/ACC SUP 1, para 7.6.7 and AFI 11-2E3V2/552ACW SUP 1, para 7.6.7. SQ/CCVs will forward exam results to the SARM who will maintain a currency database in the Aviation Resource Management System (ARMS) on Bold Face Exams.

6.1.9.2. **(552ACW)** Monthly, SQ/SARMS will provide the DO (or designated representative, normally DOT) an ARMS product. DOT will use this report to create and

review the 1- and 3-month look back on each crewmember. DOT will provide this product to the SQ/CC for review and approval.

6.1.9.3. DELETED.

**6.1.10. (552ACW) Aircrew Member Duties Not to Include Flying (DNIF) Responsibilities.** Aircrew members will:

6.1.10.1. **(552ACW)** Notify the DO, or designated representative, immediately after being placed on DNIF status and deliver the AF Form 1042 to the SQ/SARM. If a SOF qualified aircrew member is placed on DNIF status, a written statement must be on the AF Form 1042 stating capability to function as a SOF. If a cocking crewmember is placed on DNIF status, a written statement must be on the AF Form 1042 stating capability to function as cocking crew. See further guidance under Attachment 22, para A22.1.1.

6.1.10.2. **(552ACW)** Report to the flight surgeon not later than the morning following the end of the official DNIF period for medical evaluation. Crewmembers will immediately furnish the SARM their AF Form 1042 extending their DNIF or returning them to flight status.

**6.1.11. (552ACW) Personal Equipment.**

6.1.11.1. **(552ACW)** Personal cell phones, pagers and similar electronic devices will be turned off and stowed while on the flight line or onboard the aircraft. The only cell phones authorized on the flight line are those issued to the AC/MCC or their designated representative to conduct official business. OG supervisory personnel who are issued a government cell phone or similar electronic devices for performance of official duties are authorized to use it on the flight line.

6.1.11.2. **(552ACW)** Publications. Refer to the latest FCIF Volume I, Part A, and Pubs Checker for a listing of required publications by crew position.

6.1.11.3. **(552ACW)** Clothing Requirements will be carried IAW AFI 11-301V1\_ACCSUP1\_552ACWSUP1.

6.1.11.4. **(552ACW)** To assist with lost item recovery, each crewmember will mark their professional items (headset, checklist, etc) with his/her name and squadron.

6.1.11.5. **(552ACW)** All crewmembers who are issued Bose Aviation Headsets will remove the clothing clips attached to the cord and return them to 552 OSS Aircrew Flight Equipment shop.

**6.1.12. (552ACW) Unit Publications.**

6.1.12.1. **(552ACW)** Although there is no requirement to issue AFI 11-2E-3V3 and AFI 11-202V3 to each mission crewmember, the requirement to conform to these publications still exists and they must be available and accessible within the squadrons. As a minimum, publications will be maintained as follows:

6.1.12.1.1. **(552ACW)** One master copy of T.O. 1E-3A-43-1-1, AFI 11-2E-3V3 and AFI 11-202V3 will be included in each squadron's Flight Crew Information File (FCIF).

6.1.12.1.2. **(552ACW)** Two copies of T.O. 1E-3A-43-1-1 will be maintained in each SQ/CCV office.

6.1.12.1.3. **(552ACW)** One copy of T.O. 1E-3A-43-1-1 will be issued to each technician (CSO, CT, CDMT, ART).

**6.1.13. (552ACW) Publications Checker (Pubs Checker) Procedures.**

6.1.13.1. **(552ACW)** The 552 OGV/TODO (Technical Order Distribution Office) will maintain the Pubs Checker on the AWACS Portal.

6.1.13.2. **(552ACW)** All publications will be maintained IAW T.O. 00-5-1 (Air Force Technical Order System) and AFI 33-360V1 (Air Force Content Management Program-Publication).

6.1.13.3. **(552ACW)** For technical orders, including checklists, a List of Effective Pages (LEPs) entry must be made whenever there is a T.O. change or revision. The date of the LEP check and the reviewer's initials (as well as any discrepancies, missing pages, improper printing, etc.) will be annotated on the title page or LEP. LEP discrepancies should also be reported to the OGV TODO on an AF Form 847.

**6.2. (552ACW) Mission Planning.**

6.2.1. **(552ACW) Deployment/Contingency Actions:** Procedures for deployments to and from Forward Operating Locations and Contingency Operations are detailed in Attachment 4.

6.2.2. **(552ACW) Exercise Planning Materials.** All exercise-related information will be provided to the operational squadron's POC by the 552 OSS/OSOE no later than 30 days prior to STARTEX. OSOE will continue to support the squadron with issues as requested, except for information that is deemed trusted agent material. Mission planning data will be provided from the operational squadron and OSOE to the 552 OSS/OSOL through reports and interoffice coordination (e.g. weekly scheduling meetings.).

6.2.3. **(552ACW) Mission Planning Materials.** All mission planning data is maintained on the AWACS Management System (C2MS). 552 OSS/OSOL, Combat Plans, will update mission data on C2MS by 0900L the duty day prior to the flight.

6.2.4. **(552ACW) 552 OG Mission Planning Day Activities.** (Exception: 970 AACS aircrew members accomplish a modified mission planning. The 970 AACS Mission Planning Cell will accomplish mission planning duties IAW Attachment 29. 513 ACG Stan/Eval will determine appropriate procedures and compliance with the intent of section 6.2.4.)

6.2.4.1. **(552ACW)** Mission Planning will be the aircrew's primary responsibility on mission planning day. Crews will plan the mission to the greatest detail possible based on the availability of planning information. Mission planning will be conducted in five phases: An Initial Coordination meeting with the entire crew (Attachment 10), Section Specialized meetings, a Coordination Meeting with the entire crew (Attachment 12), a Leadership Review Meeting with the AC and MCC, and an Execution Briefing on mission day with the entire crew (Attachment 13).

6.2.4.2. **(552ACW)** Aircrew Responsibilities. Crewmembers will review the appropriate section of FCIF Vol I Part B (FCIF), Vol I Part C (ORF), Vol V (Flight Safety), and SQ ORF (if applicable) and certify knowledge of all items by writing the latest Vol I Part C (ORF) item (e.g. F-10 or M-15) in pencil in the space provided in the right margin of the flight order request form. The crewmember will also initial (in pencil) next to the Vol I Part C item to certify the information on the flight order request form is correct. Additionally, crewmembers will calculate an individual ORM score, and the AC will complete the Mission Planning Day portion of the Operational Risk Assessment Worksheet IAW Attachment 30.

6.2.4.2.1. **(552ACW)** All Crewmembers will review the Go/No-Go product for themselves and any students they are instructing. Any discrepancies will be resolved with the SQ/SARM prior to the initial coordination meeting and corrective action will be annotated on the Go/No-Go product.

6.2.4.2.2. **(552ACW)** 966 AACS only: For first time flyers, instructors will ensure the crewmember has accomplished a complete review of FCIF Vols I & V and is familiar with all other volumes prior to their first flight. Instructors will initial beside the student's initials on the "flight order request form," to certify the above requirements have been completed and will annotate the training on the ACC Form 206, Individual Mission Grade sheet. Instructors will ensure that the student's ride number is annotated on the same line as the student's name on the "flight order request form" for instructional sorties and their class number is annotated on the flight order request form for their evaluation.

6.2.4.2.3. **(552ACW)** Audio adapter boxes and extra comm cords are available for use when one or more communication connections are required at a position. On mission planning day, the AC/MCC will ensure all crewmembers that require additional comm equipment are identified.

6.2.4.2.4. **(552ACW)** Intelligence Briefing and Threat Training. All aircrew members will receive a Current Intelligence Briefing (CIB) on mission planning day. All aircrews will receive threat training prior to every mission sortie, as a minimum through attendance at the CIB. The AC and MCC will ensure their entire crew attends the CIB. The AC or MCC may excuse a crewmember from CIB, if required.

6.2.5. **Review Go/No-Go Currency (552 ACW Only).** The SQ/SARM and aircrew will use the PEX Go/No-Go Process outlined in AFI 11-202V2/552 ACW SUP 1 and OGV Process Guides. This process includes running Go/No-Go products in PEX and using Oracle. All aircrew are responsible for ensuring their FCIFs/ORFs are signed off in PEX on mission planning day prior to the Flight Authorization being signed. If an FCIF/ORF goes into effect before step on flight day, the AC will brief it at the execution briefing. Aircrew will, if able, sign off in PEX before stepping. Operations Supervisors will review the PEX Go/No-Go on the day of the flight before the aircrew steps to the aircraft.

6.2.6. **(552ACW) Mission Planning Briefings.**

6.2.6.1. **(552ACW)** ACs and MCCs will use Attachment 10, Attachment 12 and Attachment 13 of this supplement as a guide to plan and brief the mission.



6.2.6.2. **(552ACW)** ACs and MCCs will ensure the OGV Trends and Special Interest Items are briefed and appropriate training implemented. SQ/CCV offices will ensure the most current trend data is available. The MCC will ensure the appropriate technician is aware of the designated malfunction of the day and is prepared to brief it. OSS/OST will develop, publish and periodically update a list of 33 malfunctions. These malfunctions will be organized into a list of days with the ART, CT, and CDMT malfunctions listed for each day. Technicians will brief the malfunction of the day that corresponds to the mission planning date, as assigned by the MCC. For example, if it is day 12 then the malfunction will be selected from day 2, 12, 22 according to which technician is assigned the briefing. Extra malfunctions are provided in the event that all previous malfunctions for a given day have been briefed. MCCs may elect to have a malfunction brief that is not on the list.

**6.2.7. (552ACW) Flight Crew Planning will be IAW the Flight Crew Specialized Planning Guide (Attachment 11).**

**6.2.7.1. (552ACW) Flight Documents.**

6.2.7.1.1. **(552ACW)** After the AC certifies the flight order and passenger manifest, the SQ/SARM will take/fax these document(s) to the Command Post. The flight plan will be attached to the unit copy of the mission package, and held for DO review, as required.

6.2.7.1.2. **(552ACW)** The original copy of the flight plan (DD Form 175 or DD Form 1801) will be left with the SQ/SARM and will be filed with the rest of the mission paperwork following the sortie.

6.2.7.2. **((552ACW))** North Atlantic Track System Message (NATS). E-3 crews flying over the North Atlantic may fly on random routes outside of the North Atlantic Track System. However, the latest copy of the NATS will be obtained by the flight crew from either the Defense Information NOTAM System (DINS) website **Error! Hyperlink reference not valid.** or from Base Operations (TAFB Ops, ext 734-2191) prior to flying over the North Atlantic, in order to determine the routes being flown by aircraft authorized to fly in the North Atlantic T

**6.2.7.3. DELETED.**

6.2.8. **(552ACW)** Navs will obtain all applicable DAFIF NOTAMS from the DINS website prior to each sortie to determine if any database RPIDs have changed between DAFIF release dates.

6.2.8.1. **(552ACW)** Navs will ensure that the database on their PCMCIA card is current prior to each flight. If the database is not current all points on the flight plan must be checked against current FLIP.

**6.2.9. (552ACW) 552 ACW Additional Considerations.** The following procedures will be followed by all 552 ACW Flight crewmembers:

**6.2.9.1. (552ACW) Fuel Planning and Procedures.**

6.2.9.1.1. **(552ACW)** For planning purposes, use an average of 13,800 lbs/hr, except for the transition fuel burn target of 17,000 lbs/hr. To achieve this target, use crew coordination and effective planning in accordance with T.O. 1E-3A-1, T.O. 1E-3A-1-1, AFI 11-202V3, AFI 11-2E-3V3 and other applicable directives.

6.2.9.1.1.1. **(552ACW)** Any sortie that requires the fuel distribution to be adjusted to remain within the CG envelope will do so IAW T.O. 1E-3A-1, Subsection I- D, Fuel Loading Procedures.

6.2.9.1.1.2. **(552ACW)** Flight crews will continue to utilize C2MS as the primary method for requesting fuel loads with current operations. All ACs or their designated representatives will enter the final fuel load for the next day's mission (standard ramp fuel is 110,000 lbs) into C2MS, no later than 1400 hours on mission planning day. Fuel loads for P-sorties with same day mission planning should be entered in C2MS no later than 1400 hours the duty day prior to the flight. Since maintenance does not have the operating weight of the aircraft available to them, flight crews will enter in the REMARKS block the letter "A" and the operating weight in parenthesis, following the fuel load for non-standard fuel loads. For example, a non-standard 90,000 pound fuel load with an aircraft operating weight of 187,596 pounds would be annotated as "90 A (187596)".

6.2.9.1.1.3. **(552ACW)** If air refueling is accomplished, the FE will verify fuel on-load with the boom operator and log this amount in the AFTO Form 781H, Aerospace Vehicle Flight Status and Maintenance Document (Reverse) [Servicing Data], the 552 OG Form 86, and the AFTO Form 117. FEs will ensure AF Form 664 Aircraft Fuels Documentation Log is properly filled out anytime fuel is received off-station to include fuel received via air-to-air refueling. All documentation will be turned in at MX debrief.

6.2.9.1.1.4. In-flight fuel dump amounts must be annotated in red, with a minus (-) sign prefix in the AFTO Form 781H and the 552 OG Form 86. Reference TAFBI 13-201 for other fuel dump documentation requirements.

6.2.9.2. RVSM-only Orbits. There exist mission orbits that, due to LOA definition or ARTCC scheduling requirements, exist solely in RVSM airspace. Flight crews will enter the statement "*RVSM-only* orbit" in the Remarks section of the C2MS "Sortie Details" screen NLT 1400L the duty day prior to flight. Crews must be aware of the RVSM requirements and if the assigned aircraft becomes non-compliant with RVSM standards before or during the mission, understand that their requested RVSM airspace may be denied by the ARTCC controller and a contingency plan must be worked with CORNERSTONE.

6.2.9.2.1. **(552ACW)** The flight crew will ensure their FLIP kit is stocked IAW Attachment 7 of this document

6.2.9.2.2. **(552ACW)** The navigator will carry required navigational charts and forms for the scheduled mission, a DR kit (computer "Whiz Wheel", plotter, and dividers) and an issued type II PCMCIA card. Additionally, for CONUS missions the Nav will either carry JNCs 43 thru 45, (printed from Falcon View) a JNCA 5, or a MAJCOM approved laptop and software with a GPS moving map display (provided by the System Support Rep).

6.2.9.2.3. The flight crew will ensure their Flight Crew Pubs Kit is stocked IAW the Pub Checker updated by OGV and available on the AWACS Portal.

6.2.9.3. **(552ACW)** Non-integrated GPS. The Portable GPS Unit (PGU) provided by the SSR is the only authorized GPS for flying operations onboard the E-3. Aircrew members will have an ACC Form 206 documenting training for the PGU prior to conducting flying operations with the PGU.

6.2.9.4. **(552ACW)** Ground Refueling. If the FE ground refuels the aircraft off station, the pilot, FE, or their designated representative must enter the amount from the fuel receipts in the AF Form 664, Aircraft Fuel Documentation Log, and the AFTO Form 781H. If the aircraft is defueled, the amount must be annotated in red with a minus (-) sign prefix in the AFTO Form 781H.

6.2.9.5. **(552ACW) Transporting Hazardous Materials.** Transportation of hazardous material is governed IAW AFMAN 24-204, Preparing Hazardous Materials for Military Air Shipments. This manual governs the transport of hazardous material when entered into the Defense Transportation System (DTS) as cargo on military controlled fixed and rotary wing aircraft, according to DoD 4500.9R, Defense Transportation Regulation. Hazardous cargo entered into the Defense Transportation System (DTS) will not be shipped on the E-3. This does not limit items that may be carried in OBS kits. Items placed in the OBS kits will be in accordance with applicable maintenance guidance and regulations.

6.2.9.5.1. **(552ACW)** Hazardous materials required, as operational equipment of aircraft for ground/air servicing, as identified in applicable aircraft flight publications, are not regulated by this manual and **may be carried**. However, final authority for transport of any and all materials rests with the Aircraft commander.

6.2.9.5.2. **(552ACW)** Hazardous materials, such as hydraulic fluid and lubricating oil, are carried in the Crew Chief's storage container, in the aircraft's aft lower compartment. Other operational equipment items needed for air/ground servicing of the E-3, including sulfur hexafluoride (SF6), ethylene glycol EGW), and aircraft batteries may be carried for operational necessity with prior coordination between OG and MXG.

6.2.9.5.3. **(552ACW)** The SQ/DO and the aircraft commander will be notified NLT mission planning day with the type, weight, and required safety precautions of hazardous operational equipment, that is not included in an aircraft's basic weight. Such equipment will be secured in appropriate packaging between the rails, on the floor in the aircraft's aft lower compartment.

6.2.10. **(552ACW) Mission Crew Planning will be IAW the Coordination Meeting Guide (Attachment 12).** 970 AACS Planning Cell will prepare the specialized briefings and brief the crew IAW attachment 29.

6.2.10.1. **(552ACW)** Mission Software.

6.2.10.1.1. **(552ACW)** For TDYs and special missions that require a specific Removable Media Assembly (RMA) configuration, software requirements (i.e. special DIODTs, test software, etc.) or additional recording RMAs, the CDMT will report to the software library on mission planning day and order the required specific software. If the TDY is at a location without a media library, the CDMT will acquire sufficient 552 ACNS Internal Forms 1 for transfer of the RMA kits for the duration of

the TDY. Computer recording RMA requirements will be based on 15 hours of mission recording per RMA. Radar recording RMA requirements will be based on 6 hours of recording per RMA when all FFT, PPI, and Spectrum Analyzer data is recorded.

6.2.10.1.2. **(552ACW)** Software patches to AOCPP will only be entered when directed by FCIF, positional handbook, or as directed by the MCC.

6.2.10.1.3. **(552ACW)** AOCPP software version releases normally have a 45-day test period. Crews will be notified by FCIF when new software versions are released. FCIFs will provide interim guidance for aircrew that deployed prior to release of the handbooks/technical orders associated with a new software release. This is required before worldwide release is made compulsory for deployed aircrews. If a real world contingency arises or significant equipment problems occur while using the new software within the test period, the crew should revert to backup software (at the discretion of the MCC).

6.2.10.1.4. **(552ACW)** The software library maintains pre-built RMA kits. There is one case per RMA kit containing 2 Computer Program RMAs, 2 Computer Recording RMAs, 2 Radar Program/Recording RMAs and 1 Radar Program RMA. The computer program and radar RMAs will contain all current operational programs and databases. On mission planning day, CDMTs will call the software library (752 CS/SCOO) at 734-3195 and provide their name, unit, contact number, and estimated time of possession. **Note:** The CDMT should also check with their security manager to ensure they are on the current access letter. CDMTs will not be issued RMAs if they are not on the access letter or if it has expired.

6.2.11. **(552ACW) COMSEC Kits.** The COMSEC kit is built and maintained within the COMSEC vault. The kit will contain the necessary authenticators, callsign documents, crypto key tapes, and equipment for the mission employment area. Following a review of mission tasking and COMSEC callout messages, the MCC, SD, ASO, ECO, BDT, CT and CSO will determine additional COMSEC requirements for the kit. The CSO or CT should notify the COMSEC vault as soon as possible of any additional COMSEC requirements not normally contained in a standard COMSEC kit. Any COMSEC material not maintained locally could take up to 6 months to acquire. In addition, the kit will contain divert COMSEC coverage, normally the flight plus two days. All COMSEC material will be handled and stored IAW AFI 33-201V2, Communications Security (COMSEC) User Requirements, AFKAG-1, AFKAG-2, and local OIs.

6.2.11.1. **(552ACW)** COMSEC/CRYPTO **will not** be signed out or be left in the sole possession of any non-U.S. crewmember on or off the aircraft.

6.2.12. **(552ACW) Mission Crew In-flight Publications.** In addition to any FCIF and Pubs Checker required flight publications, the MCC will ensure the ASO obtains a classified ASO kit, the SD obtains an LOA Kit and ECO obtains a classified ECO kit on each mission. The minimum contents of these kits are listed below.

6.2.12.1. **(552ACW)** ASO Kit.

6.2.12.1.1. **(552ACW)** T.O. 1E-3A-43-1-1-1(S), Flight Manual; Mission Systems Operations.

- 6.2.12.1.2. **(552ACW)** Theater specific OPTASKs/OPDATs.
  - 6.2.12.2. **(552ACW)** LOA Kit.
    - 6.2.12.2.1. **(552ACW)** Applicable FAA Letters of Agreement.
    - 6.2.12.2.2. **(552ACW)** Other appropriate theater documents.
  - 6.2.12.3. **(552ACW)** ECO Kit with contents IAW 552 OGI 10-2
  - 6.2.13. **(552ACW) DO Briefing.** Before the conclusion of mission planning the AC and MCC will brief the DO, or designated representative, on the mission and Go/No-Go compliance.
  - 6.2.14. **(552ACW) Flight Authorization Approval.** The approving authority IAW AFI 11-401 will review all items on the Go/No-Go checklist.
  - 6.2.15. **(552ACW) Flight Authorization Distribution.** SARMs will distribute the flight authorization/passenger manifests to the agencies and in the quantities as follows:
    - 6.2.15.1. **(552ACW)** SQ/SARM – Record copy.
    - 6.2.15.2. **(552ACW)** 552 ACW Command Post – two copies.
  - 6.2.16. **(552ACW) Execution Briefing.** Conducted day of flight IAW Attachment 13.
- 6.3. (552ACW) Aircrew Operating Procedures.**
- 6.3.1. **(552ACW) Crew Rest.** The minimum planned time from landing to subsequent takeoff will be 16 hours, unless waived by the applicable group commander. If the crew flies three consecutive sorties with minimal turn times, they will be afforded 24 hours of non-duty time prior to reporting for non-flying duties or entering crew rest for a subsequent mission. The DETCO, AC and MCC will monitor the crew and consider the impact of fluctuating takeoff times on circadian rhythm. The final authority on whether the crew is fit to fly rests with the AC.
    - 6.3.1.1. **(552ACW)** Aircrew for any sortie to include P-sorties will not be scheduled for any activities prior to show time, regardless of duty day.
  - 6.3.2. **(552ACW) Command and Control.** For all missions into or out of bases other than Tinker AFB, ACs and MCCs will normally provide the data detailed in Attachment 15 to the Command Post, after landing and prior to takeoff. The aircrew may be excluded from this requirement when operating from a deployed location where they are no longer under OPCON of USJFCOM and a DETCO is provided.
    - 6.3.2.1. **(552ACW)** Unless indicated on the 552 OG Form 49, daily Combat Training Flight activity falls under the OPCON of USJFCOM. USJFCOM has delegated OPCON of daily Combat Training Flights and 966 AACS sorties to ACC. Daily Combat Training Flights and 966 AACS sorties are also TACON to ACC. TACON may be released to CONR or other command elements as required.
    - 6.3.2.2. **(552ACW)** Execution of Daily Flying Schedule.
      - 6.3.2.2.1. **(552ACW)** The Combat Operations Center (COC) is the focal point for the execution of all CONUS-based E-3 aircraft. The COC does not replace the Command Post. The AC or MCC will notify the COC when various factors affect

mission timing/mission profile. The COC will then relay this information to the respective squadron leadership. Once the squadron leadership and the OG have agreed upon a course of action, the COC will relay the information to the aircrew and begin working the mission reflow as required.

6.3.2.2.2. **(552ACW)** The COC callsign is “Cornerstone.”

6.3.2.3. **(552ACW)** Agile Sentry and Contingency Operations Procedures.

6.3.2.3.1. **(552ACW)** Airborne E-3 crews should be informed of a new tasking and/or TACON changes by the COC. If an E-3 receives notifications of a TACON change directly from an Air Defense Sector (ADS) or other agency, the AC or MCC will immediately contact the COC on CONR SATCOM.

6.3.2.3.2. **(552ACW)** Once re-tasked the AC or MCC will pass bingo time, air refueling requirements and crew duty day requirements for a recovery at Tinker AFB to the TACON agency. MCCs will advise Cornerstone when released by the TACON agency.

6.3.2.3.3. **(552ACW)** For deployments/TDY, aircrew departing Tinker will receive an OC-ALC 0-274, hazard charts, and current weather satellite photo.

6.3.2.4. **(552ACW)** OPCODE for 970 AACS sorties is AFRC.

6.3.3. **(552ACW)** Crew Report Procedures.

6.3.3.1. **(552ACW)** ACs will plan the Execution Briefing (**Attachment 13**) to start no sooner than five minutes after crew report time. This time will enable crewmembers to accomplish mandatory pre-mission activities, without impacting crew duty day. Flight duty period (crew duty day) starts at crew report time, IAW AFI 11-202V3, para 9.3.6.

6.3.3.2. **(552ACW)** When reporting for a flight, crewmembers will review the appropriate section of FCIF Volumes I and V, and certify knowledge of all FCIF items by writing the latest FCIF number (e.g. A-25 or B-12) in the space provided in the right margin of the record copy of the flight orders. The individual will also initial (in ink) next to the FCIF number to certify required publications are current and all personal information on the flight authorization is correct. Additionally, crewmembers will calculate an individual ORM score, and the AC will complete the Fly Day portion of the Operational Risk Assessment Worksheet IAW Attachment 30.

6.3.3.3. At Tinker AFB, the timelines in Table 6.1 will normally be adhered to in order to affect an on time takeoff (552 ACW Only). The aircrew times may be modified by the aircraft commander, with Ops Supervisor approval, to meet operational requirements. If a different Maintenance Crew Ready Time (MX CRT) is necessary, the SQ/DO must coordinate with the AMXS/DO and the OG/CDF.

6.3.4. **(552ACW)** **Flight Authorization Review/Certification.** The AC is responsible for accuracy of the flight authorization. The AC will initial any changes to the flight orders.

6.3.4.1. **(552ACW)** AC and SARM Review. Ensure the FCIF item numbers listed on the orders are correct and all individuals have initialed the flight orders.

6.3.4.2. **(552ACW)** Deleted Crewmembers. If a crewmember is removed from the flight, the AC will cross through the name on the flight orders and initial the deletion.

6.3.4.3. **(552ACW) Late Crewmembers.** Under extenuating circumstances (e.g., late shows, DVs, etc.) the AC for the flight may certify crewmember knowledge by initialing the flight orders for the absent crewmember, and ensure the crewmember is briefed on the latest FCIF item. The AC will also certify for maintenance personnel on flying status, who report directly to the aircraft. The SARM dispatcher will not release copies of the flight orders until all crewmembers are certified clear to fly.

6.3.4.4. **(552ACW) Added Crewmembers.** To ensure add-on aircrew members are not DNIF, the SARM will run a Go/No-Go check on the aircrew member and add them on to the flight orders. The AC will initial the addition, and sign the flight authorization signifying Go/No-Go was verified.

6.3.4.5. **(552ACW) Change of ACs.** A change of ACs requires SQ/CC or DO approval. The SQ/CC or DO will certify the change by initialing the record copy of the flight orders.

6.3.4.6. **(552ACW) Flight Authorization Change Notification.** SARMS will notify the Command Post of any changes to the flight authorization/passenger manifest.

6.3.4.7. **(552ACW) Aircrews** will contact the weather shop (734-3196) to receive updates and forecaster initials prior to stepping to the jet. Web Site - <https://wwwmil.tinker.af.mil/weather/>

6.3.4.8. **(552ACW) ACs** will ensure that the DD 175/DD 1801 is filed IAW the 72 OSS/OSAM LOA. Pilots filing flight plans via facsimile (734-2043) must call Base Operations (734-2191) to confirm receipt and acceptance of flight plans. The original copy of the flight plan will be left with the SQ/SARM, and then filed with the 552 OG Form 49 following the sortie.

6.3.5. **(552ACW) SOF Go/No-Go Procedures.** IAW AFI 11-418/552 ACW SUP 1, Operations Supervision.

6.3.6. **(552ACW) Execution Brief.** Conduct IAW Attachment 13.

6.3.7. **(552ACW) Software and Communications Reporting Procedures.**

6.3.7.1. **(552ACW) Software Possession/Delivery.** On the day of the sortie, CDMTs will report to the software library to inventory and take possession of the RMA kit. CDMTs will inventory the kit ensuring 100% classified accountability. Inventory of kits will consist of verifying the serial number of the RMA against the transfer log, ensuring program RMAs are write-protected and that the RMA partition listing folder is current and correct. CDMTs are not required to fill in the "Inventory" blocks of the 552 ACNS Internal Form 1. CDMTs will verify the inventory by signing in the "Possession" blocks of the 552 ACNS Internal Form 1.

6.3.7.2. **(552ACW) Software Security.** If a flight is postponed after signing for a RMA kit, the CDMT will return the kit to software library control, modify and reseal if necessary and put on hold until the new show time. If takeoff is delayed from Tinker AFB and the crew leaves the aircraft, the RMAs will be removed unless one crewmember stays on the aircraft to safeguard them.

6.3.7.2.1. **(552ACW)** Software Security without 552 ACNS /SCOO Support Personnel (e.g. RED FLAG). The following steps will be followed to ensure security of the RMA mission kits.

6.3.7.2.2. **(552ACW)** The Deployed Operations Officer (DETDO) will produce a list of CDMTs and maintenance personnel authorized to pick up RMA mission kits. This list will be used by the operations librarian to issue RMAs. The DETDO will coordinate with maintenance supervision to get the names of maintenance personnel for inclusion on the list.

6.3.7.2.3. **(552ACW)** The DETDO will appoint a librarian(s) to be responsible for RMA Mission Kits, classified security, and security of the safe.

6.3.7.2.3.1. **(552ACW)** The CDMT(s) will ensure appointed librarians know the procedures for issuing/receiving the RMA mission kits.

6.3.7.2.3.2. **(552ACW)** Deployed Operations Librarian(s) will issue and receive RMA mission kits at deployed locations when no 552 ACNS /SCOO support personnel are present. The librarian(s) will as a minimum:

6.3.7.2.3.2.1. **((552ACW))**

6.3.7.2.3.2.2. **(552ACW)** Ensure RMA partition folders, listing of all current software versions, are included in the mission kits. Temporarily store the RMA mission kit until pick up or delivery to the aircraft.

6.3.7.2.3.2.3. **(552ACW)** Ensure the CDMT/maintenance personnel inventories the kit and signs the 552 ACNS Internal Form 1 acknowledging transfer of the kit upon pickup or delivery.

6.3.7.2.3.2.4. **(552ACW)** Inventory RMAs and check for damage and pin cap covers when returned by crewmembers/maintenance personnel. Ensure CDMT/maintenance personnel annotated any problems on 552 ACNS Internal Form 1.

6.3.7.2.3.2.5. **(552ACW)** Track all RMAs by serial number and storage location.

6.3.7.2.3.2.6. **(552ACW)** Use the same physical labeling convention at all locations.

6.3.7.2.3.2.7. **(552ACW)** Librarians will verify accountability in local inventory for all RMAs received from CDMT/maintenance personnel.

6.3.7.2.3.2.8. **(552ACW)** The Librarians will conduct a spot check of magnetic media inventories at deployed locations at shift change, and safe opening and closing. The spot check will include verifying that magnetic media stored in the Operations Center are properly accounted for on the 552 ACNS Internal Form 1 and that entries on the 552 ACNS Internal Form 1 accurately correspond to magnetic media stored in the Operations Center. The spot check will consist of verifying the entire inventory.

6.3.7.2.3.2.9. **(552ACW)** Crews will return the RMA mission kits at the end of the TDY to the RMA Library (552 ACNS /SCOO). Ensure any problems



encountered are annotated on the 552 ACNS Internal Form 1. Crews should use either the RMA Incident Report (RIR) or Program incident report (PIR) for issues encountered during the sortie. The CDMT returning the kit will also return all 552 ACNS Internal Forms 1 showing accountability history to the 552 ACNS/SCOO library.

6.3.7.3. **(552ACW) Communications Equipment.** The CT will pick up the communications audio adapter boxes, comm. cords, extra headset(s) and the toolbox as required.

6.3.7.4. **(552ACW)** The technician history logbook is divided into three sections (CT, CDMT, and ART). Each section will contain the originals of the five most recent in-flight logs with the most recent on top. The Technician Logbooks will be kept at the tool issue section in Bldg 230 RM 160SE (across from the radar shop by the southeast entrance to the maintenance hangar). The logbook will be checked out immediately prior to the flight by the ART. All technicians will review the logbooks for the history of discrepancies during preflight. Upon mission completion and after the maintenance debrief, technicians will file their completed logs in the logbook and remove the oldest log. The removed logs will be turned into the maintenance representatives from each section and maintained for historical data. The ART will then return the logbook to the facility from where it had been signed out.

#### 6.3.8. **(552ACW) Pre-Departure Procedures.**

6.3.8.1. **(552ACW) Comm Cord Inventory.** Before each sortie, the AC (P-Sorties) or MCC and the crew chief will inventory all aircraft comm cords. The “note” in AFTO Form 781A, Maintenance Discrepancy and Work Document, will be signed by both parties.

6.3.8.1.1. **(552ACW)** Comm cord at seat 8 will be 30 feet in length, seat 11, 24, and 17 will be 12 feet in length., and seat 25 will be 50 feet. Comm cords will be marked as follows to identify the various lengths: 12 foot cords are banded with a blue band; 30 foot cords are banded with a yellow band; 50 foot cords are banded with a red band. These special length comm cords will not be moved or removed from their assigned position unless inoperable. If inoperable, an AFTO Form 781 entry will be made to inform maintenance where the inoperable cord is located.

6.3.8.2. **(552ACW)** Maintenance pre-flights on the E-3 remain valid for 72 hours. The E-3 may continually fly sorties during the 72 hour period, during which time maintenance will use the thru- flight checklist. When the 72-hour period has elapsed the maintenance pre-flight must be re-accomplished.

6.3.8.3. **(552ACW) Liquid Cooling System (LCS) Resistivity Procedures.** If a static resistivity level below 3 MΩ/cm is encountered during the ART’s preflight, the ART is required to perform the Ethylene Glycol and Water (EGW) Resistivity Check procedure in T.O. 1E-3A-43-1-1. If the resistivity level remains below 3 MΩ/cm after performing the procedure, the ART will request an Environmental Control System (ECS) technician to evaluate the LCS system. After the technician has validated the resistivity level, the following guidance will be adhered to:

6.3.8.3.1. **(552ACW)** For a LCS resistivity level between 1.5 and 3.0 MΩ/cm, the ART will coordinate with the MCC, FE and ECS technician and collectively decide whether to accept the aircraft for Tinker-based out-and-back sorties. The resistivity filter will be changed prior to departure for RONs and deployments.

6.3.8.3.2. **(552ACW)** For a LCS resistivity level less than or equal to 1.5 MΩ/cm, the filters will be changed and the LCS resistivity level will be verified.

6.3.8.3.3. **(552ACW)** LCS EGW Leak Procedures. EGW Leak Procedures are outlined in T.O. 1E-3A-43-1-1 for abnormal conditions. The ART will contact the FE and maintenance if an EGW leak is found during preflight. There is no tolerance for an EGW leak. Maintenance will ground the aircraft until the leak is corrected.

**6.3.8.4. (552ACW) Placement and use of MA-1 Portable Oxygen Bottles**

6.3.8.4.1. **(552ACW)** Aircraft should have a minimum of 10 fast-fill MA-1 portable oxygen bottles on-board. The MCC will designate a mission crew member to accomplish an accurate count upon arrival at the jet. If less than 10 fast-fill oxygen bottles are present, the AC and MCC will assess the operational/safety impact based on crew makeup and mission profile prior to accepting the aircraft.

6.3.8.4.2. **(552ACW)** Fast-fill bottles should be prioritized for firefighter and runner duties (on firefighter masks including those in the lower lobes and above seats 9, 12, 15 and 22).

6.3.8.4.3. **(552ACW)** When more than 10 fast-fill bottles are on-board, the AC/MCC will determine the location of the additional bottles. These bottles should be readily accessible to a runner looking for an extra bottle.

6.3.8.4.4. **(552ACW)** Required Oxygen Quantity (LOX). Pilot proficiency sorties will be serviced to a minimum of 45 liters. This ensures safe return of crew from either coast. Deploying aircraft will be serviced to a full system or 75 liters. Combat training sorties will be serviced to the amount determined by the AC and FE for mission execution.

**6.3.9. (552ACW) FOD Prevention.** Pilots will use minimum practical power settings during all ground operations. Flight engineers and maintenance will inspect the ramp area around the aircraft for FOD during preflight. All crewmembers share the responsibility for FOD prevention.

**6.3.10. (552ACW) Aircraft Operating Restrictions.**

6.3.10.1. **(552ACW)** Use of Portable Electronic Devices on Air Force aircraft will be IAW AFI 11-202V3 and applicable supplements. Additionally, any wireless network capable electronic entertainment device will have its wireless function disabled from the time the aircraft leaves its parking spot for departure until clear of the runway after landing.

6.3.10.2. **(552ACW)** Flameless Ration Heaters for Meals Ready to Eat (MREs). MREs may contain a water reactive heater or Flameless Ration Heater (FRH). MREs include this pack to allow the option of warming the food. FRHs contain a hazardous material that produces potentially harmful fumes. Under no circumstances will aircrew members open or activate FRHs inside the aircraft. FRHs are activated when fluids are added.

Positive means will be made to ensure that discarded FRH packs are not mixed with common trash to prevent inadvertent activation.

6.3.10.3. **(552ACW)** Y-Cords. Use of Y-cords is not authorized for flight operations.

6.3.10.4. When there is an operational requirement, crews are automatically approved by the 552 OG/CC to use gross weights above the Aerial Standard Fuel Load. Crews will observe the appropriate reduced load limits prescribed in the "Gross Weight Limit Altitude and Maneuvering Load Limits" figure in Section 5 of T.O. 1E-3A-1. Crews will also ensure that aircraft center of gravity limitations are observed.

**6.3.11. (552ACW) Post-Flight Procedures.**

6.3.11.1. **(552ACW)** After the sortie, all crewmembers and passengers will remain in the immediate vicinity of the aircraft until the post-flight comm cord inventory is completed.

6.3.11.2. **(552ACW)** Crewmembers will turn in all flight/mission crew kits, folders, FLIP kit, and all mission forms to their SQ/SARM immediately after the flight. The AC/MCC/ASO/SD and ECO will fill out the appropriate portions of the 552 OG Form 49.

6.3.11.3. Post Flight Debrief. Conduct the post flight debrief IAW [Attachment 16](#).

**6.3.12. (552ACW) Commander Compensation Time Policy.** All active duty personnel who deploy will be given the opportunity to take time off immediately after return to home station. Time off will be proportional to the length of the deployment. To determine the number of days authorized, divide the number of weeks deployed by 1.5. A maximum of 15 days compensation time/R&R is authorized.

6.3.12.1. **(552ACW)** The compensation time shall be allotted using the following guidance.

6.3.12.1.1. **(552ACW)** The first duty day back will be an equipment turn-in and processing day and is considered a duty day. Days 2-5 must start and stop in the local area, but have no other travel restrictions. Days 6-15 are local area R&R.

6.3.12.1.2. **(552ACW)** Only the most dire mission requirements should prevent an individual from taking compensation time.

6.3.12.2. **(552ACW)** Reserve units are encouraged to allow personnel to take time off following return from deployment.

6.3.12.3. **(552ACW)** During the time off period, unit commanders will calculate their personnel readiness status (P-Level) and report an overall C-status as if these personnel were non-recallable.

6.3.12.4. **(552ACW)** This policy applies to whole-unit, part-unit, and individual personnel deployments. Home station schedules will be built considering these personnel as not available.

**6.3.13. (552ACW) Aircraft Tours While Off-Station.**

6.3.13.1. **(552ACW)** The AC or FE must accompany all off-station tours of the E-3. The AC or FE must ensure the transformer rectifier rotary switch is not left in the

“Battery” position, and that the battery and emergency lights are turned off prior to departing the aircraft. Brief this policy to all crewmembers during pre-deployment mission planning.

6.3.13.2. **(552ACW)** At locations with maintenance support, the AC or FE is not required if maintenance has control of the aircraft. Tours will not conflict with the maintenance function. Deployed staffs will coordinate tours.

#### **6.4. (552ACW) Flight Crew Operating Procedures.**

##### **6.4.1. (552ACW) Pre-departure Procedures.**

6.4.1.1. **(552ACW)** Takeoff and Landing Data (TOLD). The FE and pilots will verify whether the TOLD computed during the mission planning is still valid for use the day of the flight. This should be done before the engines are started. Recomputation of TOLD due to weather changes, i.e., wind gusts, temperature, etc., that occur after engine start need only be recomputed if performance decreases. If the TOLD was computed for wet runways and the tower reports the runway condition as dry, the TOLD will be recomputed.

6.4.1.2. **(552ACW)** Damage to Circuit Breakers. Circuit breakers can be damaged by the placement of crew bags in the area forward of circuit breaker panels P61-5 and P61-6. Use extreme caution when using this area for professional gear storage.

##### **6.4.1.3. (552ACW) DD Form 365-4/Loading/Seat Configuration.**

6.4.1.3.1. **(552ACW)** J-Compartment Loading. IAW T.O. 1E-3A-5-2 and T.O. 1E-3A-1, Section V, Limitations. Maximum load is 2,598 pounds, not to exceed 90 pounds per square foot. There are three methods to secure cargo in the J-compartment.

6.4.1.3.1.1. **(552ACW)** Method One. Personnel will not occupy J-compartment area seats 43, 44, 45, and 46 if the nylon strap cargo net is used as only means of securing cargo. Do not stack load more than 40 inches above tie-down area. Light weight items may protrude above the 40 inch level if they are secured below the 40 inch level.

6.4.1.3.1.2. **(552ACW)** Method Two. This method utilizes cargo straps and allows J-compartment seats to be occupied provided proper restraint procedures are used. As a minimum, each piece or part of cargo/luggage that could potentially move needs to be secured fore and aft, laterally and vertically. In all cases this requires at least two cargo straps. Do not stack load more than 40 inches above tie-down area. Light weight items may protrude above the 40 inch level if they are secured below the 40 inch level.

6.4.1.3.1.3. **(552ACW)** Method Three. This method utilizes the rope type cargo net. It allows use of J-compartment seats 43, 44, 45, and 46. Maximum cargo height is 30 inches, which is approximately equal to seat armrest height. If J-compartment seats 43-46 are not utilized do not stack load more than 40 inches above tie-down area. Light weight items may protrude above the 40 inch level if they are secured below the 40 inch level.

6.4.1.3.1.4. **(552ACW)** Securing cargo with straps (Method Two) and the cargo

net (Method Three) provides the most secure tie-down configuration and allows J-compartment seats to be occupied.

6.4.1.4. **(552ACW)** Pre-departure Coordination. When flying an off station sortie, without a deployed staff, the AC will call the SQ/DO or representative prior to takeoff to update mission changes and confirm current FCIF. When a new FCIF exists, the DO will fax or verbally brief the item to the AC. The AC is responsible for briefing the FCIF to the crew. The AC will then place a statement on the record copy of the flight orders stating the crew has certified acknowledgment of all FCIF items.

6.4.1.5. **(552ACW)** Mission Cancellation. If takeoff cannot be accomplished within a reasonable time (normally three hours after scheduled takeoff), due to maintenance or other problems, the MCC and AC will coordinate with the SQ/DO to determine if continuing the mission is practical. If delay exceeds five hours, the MCC and AC must carefully consider crew condition against operational necessity, before continuing with the mission.

6.4.1.6. **(552ACW)** Authority to Clear a Red X. If a situation is encountered where the aircraft is on a red X and qualified maintenance personnel are not available to clear it, the home station MXG/CC will designate an individual to sign off the red X. An aircraft with a red X may be released for a one-time flight provided the aircraft is or can be made airworthy under tightly controlled and specified operating conditions and is authorized by the owning MXG/CC or his/her designated official..

6.4.1.7. **(552ACW)** GINS Flight Plan verification. Due to the inability of GINS to differentiate and notify the operator of multiple waypoints with the same identifier, the following procedures will be followed:

6.4.1.7.1. **(552ACW)** If the flight plan was not retrieved from the PCMCIA card but was entered manually using a current DAFIF database (by its ICAO identifier), the latitude and longitude of the entered waypoint will be crosschecked against current FLIP.

6.4.1.7.2. **(552ACW)** If the DAFIF database is not current, verify the accuracy of the data for each waypoint by crosschecking the information against current FLIP.

6.4.1.8. **(552ACW)** The starting engines checklist will normally be initiated 30 minutes prior to take-off time.

#### 6.4.2. **(552ACW)** Taxi Procedures.

6.4.2.1. **(552ACW)** At locations without E-3 taxi lines, ACs will brief a clear taxi plan with the crew chief prior to entering the aircraft. This discussion should focus on the initial turn direction, potential obstructions, and the location of the lead marshaller and wing walkers.

6.4.2.2. Non-standard taxiway widths. Crews will exercise extra vigilance while using these taxiways due to their narrow width.

6.4.2.2.1. E-3 crews are authorized to utilize RAF Mildenhall taxiways Alpha and Bravo (73.8 feet).

6.4.2.2.2. NAS Sigonella, Catania, Italy. E-3 aircrews may only taxi on the taxiways listed below.

6.4.2.2.2.1. E-3 crews will only use taxiways Bravo and Delta between runways 10R/28L and 10L/28R. Taxiway Alpha between the runways will not be used due to its lower weight bearing capability. Taxiway Charlie will not be used due to its width (49').

6.4.2.2.2.2. E-3 aircrews may use taxiway Alpha or Bravo to access the parking ramps from runway 10L/28R and taxiway Foxtrot between the parking rows.

6.4.2.3. **(552ACW)** Flight crews will monitor ground speed during taxi and verify the aircraft position at the hammerhead is accurate. The navigator will attempt to realign an inaccurate EGI if any discrepancies are noted at the hammerhead.

6.4.2.4. **(552ACW)** The 552 OG/CC, or 513 ACG/CC when applicable, will approve aircrew taxi aircraft for maintenance troubleshooting or operational checks after coordination with the 552 MXG/CC. Aircrew members performing taxi checks will be experienced. Refer to AFI 11-218 and associated supplements for specific guidance on maintenance troubleshooting and operational checks when operating aircraft on the ground.

6.4.2.5. **(552ACW)** Aircrews should prevent jet engine exhaust from entering the north end fire station. Aircraft awaiting release or clearance onto the runway in the north hammerhead should point their aircraft to the south inside the hammerhead or hold short prior to turning east into the hammerhead. If an aircraft is currently parked in the hammerhead, approaching aircraft should hold short facing north while awaiting further clearance.

6.4.2.6. **(552ACW)** Flight crews will use caution when exiting the runway utilizing a high speed taxiway. Do not turn off of the runway until a safe taxi speed for the current conditions has been achieved.

#### 6.4.3. **(552ACW)** Departure Procedures.

6.4.3.1. **(552ACW)** AWACS Controlled Departure. An "AWACS Controlled Departure" is a takeoff time based on critical mission timing requirements for JCS or higher headquarters directed missions. Normal mission departures shall not use or request "AWACS Controlled Departure" procedures. The following procedures apply IAW TAFBI 13-201, Flight and Ground Operations.

6.4.3.1.1. **(552ACW)** Current Operations will compile all controlled departure times and provide the time by callsign to Base Operations as far in advance as possible. Any subsequent changes will be relayed as soon as known.

6.4.3.1.2. **(552ACW)** The AC will annotate the DD Form 175/1801 Remarks Section with mission priority and "AWACS Controlled Departure."

6.4.3.1.3. **(552ACW)** Upon initial contact with the tower, the crew will state the controlled takeoff time requirements.

6.4.3.1.4. **(552ACW)** The AC will notify the Command Post, Base Operations and the control tower of any cancellation or delay and the revised controlled departure time.

6.4.3.2. **(552ACW)** Noise Abatement Procedures. IAW T.O. 1E-3A-1, (Flight Manual), AFI 13-201, (Air Force Airspace Management), AFI 13-201/ACC SUP 1, (ACC Airspace Management), and TIK 13-201 (Flight and Ground Operations).

6.4.3.2.1. **(552ACW)** Maintenance engine runs and transition (touch-and-go landings or low approaches) between 2230L and 0600L at Tinker AFB are prohibited. Unscheduled takeoffs, landings or engine runs during this period require applicable group commander approval.

6.4.3.2.2. **(552ACW)** When flying radar patterns, downwind will be flown clean at 200 KIAS or  $V_{co} + 55$  (approximately  $V_{ref} + 65$ ), whichever is higher.

6.4.3.3. **(552ACW)** Severe Weather Advisories. Base Weather will issue a “***Lightning Watch***” approximately 30 minutes prior to anticipated thunderstorm activity within 10 NM of Tinker. When a thunderstorm forms or moves within 10 NM, the warning “***Observed Lightning within 10 NM***” will be issued, which means a lightning strike has already occurred within 10 NM. When a thunderstorm forms or moves within 5 NM, the warning “***Observed Lightning within 5 NM***” will be issued, which means a lightning strike has already occurred inside of 5 NM. Depending on where the thunderstorm forms, the 10NM warning may not always precede the 5NM warning. Either or both warnings will be issued and cancelled as dictated by the proximity of the storms. The Command Post will notify wing supervisory personnel, to include the SOF and flight line expeditor. **Flight line operations will cease while the 5NM warning is in effect. Flight line operations may continue with only the 10NM warning in effect at the discretion of flight line supervisors.** When the flight line is shutdown, personnel will evacuate and seek shelter inside a building, enclosed vehicle or aircraft until Base Weather cancels the warning which caused the shutdown. All warnings will be cancelled when thunderstorms are no longer within 10 NM of Tinker.

6.4.3. 4. **(552ACW)** Additional Weather Advisories. Freezing fog is considered freezing precipitation.

6.4.3.5. **(552ACW) Hot Mic Procedures.** The use of “Hot Mic” will be at the discretion of the individual pilot flying.

6.4.3.6. **(552ACW)** Crew members standing during critical phases of flight, as defined in AFI 11-2E3V3, the maximum number of flight crew instructors/evaluators standing will be limited to two.

6.4.3.7. **(552ACW)** Use of Forward Urinal. The forward urinal on the E-3 is not maintained in operable condition and will not be used at anytime.

6.4.4. **(552ACW) On-Station Procedures.**

6.4.4.1. **(552ACW)** Navigators will verify the aircraft position and GINS accuracy with a systems crosscheck for all required position checks IAW AFI 11-2E3V3. All fixes will be plotted and time annotated on the navigational chart.

6.4.4.2. **(552ACW)** Pilots and navigators will closely monitor the first complete trip around the orbit after initial intercept to be sure the aircraft is maintaining the proper orbit.

6.4.4.3. **(552ACW)** During non-critical phases of flight (orbiting or during long cruise legs), the pilot will display and monitor the primary steering solution (normally INU1/GPS1) via the pilot's CDU. The co-pilot will backup the pilot's steering solution by displaying and monitoring an alternate steering solution (normally INU2/GPS2). The primary solution should be crosschecked with the alternate steering solution using all available references (i.e. groundspeed, heading and position).

6.4.4.4. **(552ACW)** If the mission systems are operating, flight crews will immediately notify the MCC of any navigation system discrepancies. This includes prior to and following completion of an EGI in-flight alignment.

6.4.4. 5. **(552ACW)** In-flight alignments completed for training with one operable EGI supplying mission system inputs does not require MCC coordination.

**6.4.5. (552ACW) Pattern Training and Procedures.**

**6.4.5.1. (552ACW) Transition.**

6.4.5.1.1. **(552ACW)** Transition duty day. All 552 ACW sorties require group commander approval to extend transition duty day past 12 hours.

6.4.5.1.2. **(552ACW)** For CONUS transition, the AC will coordinate with the SQ/DO. Transition outside the CONUS requires applicable OG/CC approval. In addition to guidance in command directives and technical orders, airfields must have an operating control tower and adequate emergency response capability (immediate crash response). Due to potential FOD issues, Dyess AFB will not be used as a transition base.

6.4.5.1.2.1. **(552ACW)** Night Transition Familiar Fields. Reference AFI 11-202V3/ACC SUP 1 for night transition restrictions. The following airfields are designated "familiar fields" for night touch and go purposes if the Instructor Pilot (IP) has landed at these fields while stationed at Tinker.

6.4.5.1.2.1.1. **(552ACW)** 552 ACW: Altus AFB, Amarillo IAP, Barksdale AFB, Clinton-Sherman, East Texas Regional (Longview), Forbes Field, Lincoln Municipal, McConnell AFB, NAS Fort Worth JRB, Offutt AFB, Robert Gray AAF, Tinker AFB, Tulsa INTL, Whiteman AFB and Will Rogers WAP.

6.4.5.1.2.1.2. **(552ACW)** In addition to the bases listed above, at the request of the aircraft commander, the 552 OG/CC may define a field as "familiar" for an IP if all of the following conditions are met:

6.4.5.1.2.1.2.1. **(552ACW)** The flight crew has conducted mission planning in anticipation of accomplishing night touch-and-go's at the requested field.

6.4.5.1.2.1.2.2. **(552ACW)** The IP has flown or supervised a day VFR or IFR pattern and a day landing or low approach in VFR conditions at the



requested transition field within the last 60 days or as specified by 552 OG/CC. This requirement is intended to familiarize the IP with the entire local flying environment. An enroute descent to a full stop landing does not fulfill this requirement.

6.4.5.1.2.1.2.3. Squadron supervision (Top 3) has reviewed the IP's training plan and recommends approval to the 552 OG/CC.

6.4.5.1.2.1.3. **(552ACW) Note:** Night touch-and-go's may be accomplished on the same sortie the day pattern and landing work were accomplished.

6.4.5.1.2.1.4. **(552ACW)** 513 ACG: 10 AF "approved list" only.

6.4.5.1.3. **(552ACW)** Tinker AFB Pattern Comm Procedures. Reference TI 13-201. AC determines whether use of UHF (for ATC) in the Tinker pattern creates a risk to flight operations greater than the risk of using VHF when UHF-only aircraft are in the pattern.

6.4.5.1.4. **(552ACW) Transition Restrictions-** See Attachment 25 for a matrix of restrictions

6.4.5.2. **(552ACW)** Will Rogers World Airport Procedures. Pilots conducting transition training at Will Rogers World Airport will comply with the following guidance, unless changed or amended by the controlling agency (approach control/tower). The intent of these procedures is to minimize the potential for noise complaints and in no way will override good judgment or safety of flight.

6.4.5.2.1. **(552ACW)** Will Rogers General. Provide a courtesy call to the tower watch supervisor, (405) 686-4717. If conditions necessitate the use of Will Rogers World Airport for transition after already airborne, attempt coordination with OKC approach. The preferred runway for transition is 17R/35L. Aircrews should request a west missed approach from ATC. If ATC cannot provide a missed approach to the west, execute a four-engine climb to 2500 feet MSL before starting eastbound. For noise abatement, transition training is not recommended from 2200L to 0600L.

6.4.5.2.2. **(552ACW)** VFR Traffic Patterns. Aircrews executing VFR patterns should request 3000 feet MSL downwind and patterns to the west of the airport.

6.4.5.2.3. **(552ACW)** IFR Traffic Patterns. Aircraft remaining in the radar pattern can expect to maintain 4000 feet MSL on downwind.

6.4.5.3. **(552ACW)** Amarillo International Airport (IAP). E-3 aircraft operating at Amarillo IAP will avoid over flight of the Pantex nuclear facility to the maximum extent possible. On radar vectors (IMC or VMC), follow controller instructions. Expect slightly longer vectors to avoid turning base over the facility, allowing over flight in level flight with reduced power settings on straight-in final. When performing VFR patterns or visual approaches, avoid Prohibited Area 47. The effective altitude of P-47 is surface to 4800 feet MSL (1200 feet AGL).

6.4.5.4. **(552ACW)** Clinton-Sherman Industrial Park (KCSM). IAW with the memorandum of understanding between the 552 OG and 513 ACG (Tinker AFB), 97 OG (Altus AFB) and the 71 OG (Vance AFB), Vance aircraft have priority at KCSM between 0900L and 1200L Mon-Fri and Altus aircraft between 1200L-2359L Mon-Fri

(Oct-Apr) and between 1200L-0100L Mon-Fri (Apr-Oct). 552 Aircraft may accomplish transition at KCSM during these times by coordinating with applicable base agency having priority (Vance T-1 Sup @ DSN 448-6251 or Altus SOF @ DSN 866-7490). Current MOU is located at 552 OSS/OSOR.

6.4.5.5. **(552ACW)** Tulsa International Airport. Provide a courtesy call to Tulsa's TRACON Sup (918-831-6714). Inform TRACON of ETA and expected duration. Verify Tulsa's Ozone Alert status. E-3s will not conduct transition at Tulsa during Ozone Alerts.

6.4.5.6. **(552ACW)** Waiver to ATC Reported Wind Variability. Operations with crosswinds in excess of 25 knots (RCR 23) or 15 knots (RCR 10) IAW AFI 11-2E3V3 para 4.2.5.1. requires applicable group commander approval. ACs may request approval from the applicable group commander to land with reported variable crosswinds in excess of AFI 11-2E3V3 limits provided the following conditions exist:

6.4.5.6.1. **(552ACW)** *Prevailing wind* does not exceed para 4.2.5.1. limitations.

6.4.5.6.2. **(552ACW)** Worst-case wind (*including variability and gust*) does not exceed T.O. 1E-3A-1-1 crosswind limitations.

6.4.5.6.3. **(552ACW)** Ceiling and visibility are at least 1000/3 (feet/miles).

6.4.5.6.4. **(552ACW)** The approach and landing will be flaps 40 or more, four-engine, full stop by the AC/IP.

6.4.5.6.5. **(552ACW)** As a minimum, winds will be checked at the FAF and/or when cleared to land.

6.4.5.6.6. **(552ACW)** RAMROD is in a position to monitor the landing and the windsock for significant directional changes.

6.4.5.6.7. **(552ACW)** ACs should request the waiver just prior to commencing the approach and approval authority is good for that approach only. If at any time during the approach the AC or SOF determines that reported or observed winds may hinder a safe landing, a go-around will be accomplished.

6.4.5.6.8. **(552ACW)** On a wet runway, a 2-3 knot difference between paragraph 4.2.5.1. limitations and the Performance Manual exists. Consequently, the probability of being able to take advantage of this waiver process on a wet runway is small.

#### 6.4.6. **(552ACW)** Divert Instructions.

6.4.6.1. **(552ACW)** When directed to divert wing aircraft, the Command Post controllers will notify the airborne aircraft by direct UHF or VHF contact, or through the appropriate military or FAA controlling agency. Instructions will direct landing at a planned alternate or will specify a diversion base, as directed by the SOF or group commander. The reason for the diversion (i.e. weather, closed runway, etc.) will accompany the instructions unless the reason is classified. Receipt of diversion instructions will be confirmed to Command Post by whatever means available. The Diversion Card (Attachment 17) is available in each pilot and navigator's Aircrew Aids. The Command Post will contact the 552 OSS/OSOS duty scheduler, or 513 OSF/OSOS and 970 AACS/DO, as appropriate, when an aircraft diverts. The OSOS duty scheduler

will determine (with Maintenance Scheduling) the impact of the divert and take appropriate measures.

6.4.6.2. **(552ACW)** After landing at a diversion or alternate base, pass landing and proposed takeoff information to the Command Post using the format and phone numbers in Attachment 15.

**6.4.7. (552ACW) Bird Strikes.**

6.4.7.1. **(552ACW)** Bird strikes on aircraft operating from Tinker AFB will be reported to the Supervisor of Flying (SOF), Air Traffic Control (ATC), Command Post, and the appropriate 552 ACW or 513 ACG Safety Office. Pilots will report in person or by telephone to the Wing Safety Office within 72 hours of the occurrence.

6.4.7.2. **(552ACW)** Bird strikes on aircraft operating at bases other than Tinker AFB will be reported to ATC and the flying safety officer at the landing base. The AC will also complete AF Form 853, Air Force Wildlife Strike Report, and file at the base of occurrence.

6.4.8. **(552ACW) 552 ACW Form 41, Aircraft Incident Worksheet.** ACs will fill out a 552 ACW Form 41 following any ground or in-flight emergency, air abort for aircraft system malfunction, dropped object, or any incident which has a high accident potential. The completed 552 ACW Form 41 will be turned in to WG/SE within 24 hours of the incident.

**6.4.9. (552ACW) Weather Minimums.**

6.4.9.1. **(552ACW)** Requirements for TIER I Certification. SQ/CCs will certify ACs as TIER I.

6.4.9.1.1. **(552ACW)** TIER I Landing Minimums. ACs who have been certified TIER I by their SQ/CC must have a minimum 200-foot ceiling and one half-mile visibility or published minimums (whichever is higher) to start a published straight in or sidestep approach or enroute descent. Waiver authority to permit approaches using visibility only requirements rests with the applicable group commander or designated representative.

6.4.9.1.2. **(552ACW)** TIER I Takeoff Minimums. Pilots must have a minimum 1600 feet (500m) RVR. For RVR less than 1600 RVR refer to AFI 11-202V3/ACC Sup 1.

6.4.9.1.3. **(552ACW)** TIER II Landing Minimums. For landings, ACs who do not meet TIER I criteria will use 300 ft ceiling and 1 mile visibility or published minimums, whichever is higher. (Note: TIER II DH/MDA will be 300 feet or published minimums, whichever is higher.)

6.4.9.1.4. **(552ACW)** TIER II Takeoff Minimums. Pilots must have a minimum 1-mile visibility. TIER II ACs can be waived to TIER I minimums by the applicable group commander.

6.4.9.2. **(552ACW)** Aircrew are reminded to file a takeoff alternate when weather is below approach minimums. (ref. AFI 11-202V3/ACC Sup 1)

6.4.9.3. **(552ACW)** Conduct IFR approaches (actual or training) IAW Attachment 18.

6.4.10. **(552ACW) In-Flight Emergencies.** Unless safety of flight dictates otherwise, flight crews will employ standards established in Attachment 19 for in-flight emergencies.

6.4.10.1. **(552ACW) Take Off/Approach/Landing Policy**

6.4.10.2. **(552ACW)** CMR First Pilots (FPs) may perform simulated engine-out maneuvers with an “experienced” AC.

6.4.10.3. **(552ACW)** CMR FPs may take off or land in either seat with a qualified AC in the other seat except in those cases where a qualified AC must perform the takeoff or landing from the left seat.

6.4.10.4. **(552ACW)** CMR FPs may take off or land with passengers on board except in those cases where a qualified AC must perform the takeoff or landing.

6.4.10.5. **(552ACW)** FPs and AC upgrade candidates who are in formal training may occupy the left seat during take offs or landings when the weather is below 300’ ceiling and/or 1 statute mile visibility provided an IP/SEFE is performing the takeoff or landing from the right seat.

6.4.10.6. **(552ACW)** FPs and AC upgrade candidates who are in formal training may occupy the left seat during take offs or landings when a DV Code 4 is on board as a passenger provided an IP/SEFE is performing the takeoff or landing from the right seat.

6.4.11. **(552ACW) Air Refueling Restrictions.** Air refueling envelope limit demonstrations will only be performed by an IP/SEFE or by pilots in training to attain instructor qualification (pre-IPUP, initial or requal) under IP/SEFE supervision.

6.4.12. **(552ACW) E-3 Aircraft Predeployment Procedures.**

6.4.12.1. **(552ACW)** Mission Planning Day. Maintenance personnel will come to the flying squadron to brief the crew on the aircraft’s maintenance history to include any significant trends or suspect systems. The AC/MCC will notify the respective current ops (552 OSS/OSO or 513 ACG/OSF) if the scheduled mission does not allow for the completion of the entire checklist. The AC/MCC will obtain the latest version of the 552 OG Form 2 to complete during the mission.

6.4.12.2. **(552ACW)** Day of Flight. If last minute changes are unavoidable (such as loss of tanker or the assignment of this aircraft to a different crew), the applicable AC/MCC will make every effort to accomplish the checklist and all planned training events. If this is not possible, the AC/MCC will seriously consider changing the mission profile to accommodate the predeployment checklist. This may include refueling on-load changes, duration extension, or transition duty day extension. If the crew is unable to complete the entire predeployment checklist, they will complete the sections for the systems that were operated. The applicable squadron will ensure that 552 OSS/OSO is kept informed of any significant changes.

6.4.12.3. **(552ACW)** Checklist Guidance. The AC/MCC will ensure the 552 OG Form 2 is properly completed and turned into the Production Supervisor during maintenance debrief. Applicable discrepancies will be written up in the AFTO Form 781 and debriefed with maintenance. The “comments” blocks on the checklist are subjective and comments are not limited to the checklist. Comments should provide an idea of all

discrepancies encountered and whether they could adversely affect the operational mission.

**6.4.13. (552ACW) Trans-Oceanic Flights & Flights Outside Navigation Radio-Aid Range.**

6.4.13.1. **(552ACW)** Navigators will plot both the planned route of flight and the ATC-cleared route of flight on the chart. The navigator will accomplish a Gross Navigational Error (GNE) coast out/in fix and compute an equal time point (ETP). Additionally, an ETP will be calculated anytime the planned route of flight takes the E-3 more than 90 minutes away from a useable aerodrome.

6.4.13.2. **(552ACW)** To prevent GNE, approximately 10 minutes after each turn point, the navigator will plot the designated pilot's position on the chart and compare it to the intended route of flight.

6.4.13.3. **(552ACW)** Navigators will crosscheck all navigation information. Compare the designated pilot's position against the non-designated pilot's position and all pertinent navigational information on both the "STR" and "PSN" pages. Verify that both positions are accurate, all information correlates to anticipated data, and that the calculated winds correspond to the forecasted winds.

6.4.13.4. **(552ACW)** Navigators will provide an outbound heading to the pilot no later than 2 minutes prior to a turn point. Headings, ETAs, and distances will be crosschecked against the computed flight plan in conjunction with each fix and prior to each turn point.

6.4.13.5. **(552ACW)** Navigators will fly with a PGU (provided by the SSR) on all trans-oceanic flights or flights outside of navigation radio-aid range. Flying without a PGU requires SQ/DO approval.

6.4.13. 6. **(552ACW)** Navigators will re-wind their flight plan prior to stepping to the jet to ensure having the most accurate data available.

**6.5. (552ACW) Mission Crew Operating Procedures.**

**6.5.1. (552ACW) Pre-departure Procedures.**

6.5.1.1. **(552ACW)** COMSEC Container. The COMSEC container should be stored under the communication console, behind the CSO seat for takeoff and landing.

6.5.1.2. **(552ACW)** Emergency Personal Oxygen System (EPOS).

6.5.1.2.1. **(552ACW)** Prior to flight, MCCs will ensure that one EPOS is distributed to each person sitting in seats not equipped with system oxygen.

6.5.1.2.2. **(552ACW)** In the event of an actual emergency requiring the use of supplemental oxygen, crewmembers in seats without system oxygen will initially use the MA-1 portable oxygen bottle. If the bottle cannot be maintained due to slow refill or is required for the bottle refill team, the EPOS may be used to ensure adequate oxygen is available.

6.5.1.2.3. **(552ACW)** EPOS **will only** be used for an actual emergency.

**6.5.2. (552ACW) Equipment Operating Procedures.**

6.5.2.1. **(552ACW)** Console Precautions. Only spill proof containers are allowed for consumption/storage of liquids of any kind at any console.

6.5.2.2. **(552ACW)** CSOs will verify that all three HF radios have the HF ALE network data fill loaded during Outbound Procedures or within two hours after releasing radios for mission use. If the CSO is unable to load the data fill in the HF radios, the CSO will advise the CT to inform maintenance that HF ALE needs to be loaded. Maintenance will make it an info note on the Form 781.

6.5.2.3. **(552ACW)** When multiple recording partitions are required (i.e. split mission with QC in the middle or multiple day RONS etc.) CDMTs will utilize the HDS Split Partition and HDS Set Partition Name Commands to split and name the recording partition. CDMTs will name the recording partitions with, as a minimum, the Mission ID (MID), tail number and mission date. Any additional recording partitions created on the same mission will be logged with the MID followed by an alpha character (i.e. F1371605A, F1371605B, and so forth).

6.5.2.4. **(552ACW)** Link-16 Operations.

6.5.2.4.1. **(552ACW)** Link-16 operations will be conducted IAW the 552 OG Form 15TJ. Deviations from the Form 15TJ are prohibited unless authorized by 552 OSS/OSXJ. OSXJ can be reached via phone patch at DSN 884-5274 or via SATCOM to Cornerstone who can relay the message.

6.5.2.4.2. **(552ACW)** In the event that a crew is directed by a DoD agency to cease Link-16 operations, the crew will immediately set the terminal to Radio Silent. The ASO will notify OSXJ upon landing of the time and location of the E-3 when the order to cease Link-16 operations occurred.

### 6.5.3. **(552ACW)** Mission Crew On-Station Procedures.

6.5.3.1. **(552ACW)** In CONUS and adjacent airspace, E-3 control of mission aircraft will be IAW FAA Order 7610.4K *Special Military Operations*. If the LOA does not require an external weapons correlation check, the MCC will determine that the internal system cross correlation check is valid when the ASO calls radar and IFF operational AND the navigator confirms his equipment is operational/Fully Mission Capable. If the LOA requires an external correlation check, the SD will accomplish the correlation check with ATC prior to assuming control of weapons airspaces. The correlation check will consist of:

6.5.3.1.1. **(552ACW)** Locate a radar data track with an active IFF/SIF Mode III code.

6.5.3.1.2. **(552ACW)** Contact ATC, or other ground control agency, and identify an E-3 radar data track from a pre-determined point.

6.5.3.1.3. **(552ACW)** If the ground agency is able to repeat the E-3 track position within 2NM of the data, the correlation check will be considered accurate and complete.

6.5.3.2. **(552ACW)** During contingency operations, the E-3 must have operational primary radar, and will operate as part of an air control system IAW theater directives.

6.5.3.3. **(552ACW)** During CONUS E-3 missions, the MCC will ensure communication is established with the Air Defense Sector (ADS) which the E-3 is operating, unless exempted by mission tasking directives (e.g. RED FLAG). If mission radio requirements preclude continuous E-3/ADS contact, advise the ADS, and provide another route to contact the E-3. When departing station, advise the ADS of any deviations from scheduled station time.

6.5.3.4. **(552ACW)** Control in Non-LOA Airspace. Control in non-LOA airspace is allowed provided SD/AWO/WDs follow established procedures and obtain airspace limitations and local altimeter from the agency or fighters who own the airspace. Communications will be established with the appropriate center for safety. Weapons evaluations may be administered in non-LOA airspace provided areas not covered (e.g. ATC coordination) are covered verbally.

6.5.3.5. **(552ACW)** During CONUS training missions only the ASO is permitted to download the PDS when the crew does not include a qualified ECO. ASOs will not download the PDS during contingencies, higher headquarters-directed exercises or dedicated counter drug operations. The ASO will not troubleshoot PDS problems unless specifically requested by the CDMT. The ASO may change the identification, priority or wanted status of emitters/platforms. No PDS derived data will be transmitted on voice nets or data links without a qualified ECO on board...

6.5.3.6. **(552ACW)** ECOs will not be employed as primary controllers on operational sorties or large force employment exercises. ECOs will not perform live control duties unless approved by OG/CC.

#### 6.5.4. **(552ACW)** Off Station Procedures.

6.5.4.1. **(552ACW)** DPS/ESMG Data Destruction. DPS and ESMG Data Destruct procedures must be performed whenever classified material cannot be stored on the aircraft (e.g., if the software kit cannot be stored on the aircraft due to security, the Data Destruct procedures will be performed during power down).

6.5.4.2. **(552ACW)** The Command Post report will be passed by the CSO 1 hour prior to landing. Unless coordinated with the AC/MCC the report will contain the following:

6.5.4.2.1. **(552ACW)** Fuel Onload in pounds

6.5.4.2.2. **(552ACW)** On Station time

6.5.4.2.3. **(552ACW)** Off Station time

6.5.4.2.4. **(552ACW)** Estimated time back (Time passed to the Command Post should be the time that the crew expects to be arriving in the aircraft's parking spot.)

6.5.4.2.5. **(552ACW)** Maintenance status

6.5.4.2.5.1. **(552ACW)** Radar

6.5.4.2.5.2. **(552ACW)** IFF

6.5.4.2.5.3. **(552ACW)** Computer

6.5.4.2.5.4. **(552ACW)** Communications

6.5.4.2.5.5. (552ACW) Airframe

6.5.4.2.5.6. (552ACW) COMSEC support required

6.5.4.2.5.7. (552ACW) Intelligence

6.5.4.2.5.8. (552ACW) Mission Results

6.5.4.3. (552ACW) **NOTE:** For training sorties originating and terminating at Tinker AFB; fuel onload and On/Off station times are not required unless the scheduled onload was not received, there was a one hour or greater deviation from the scheduled On/Off Station times, or the orbit area changed.

6.5.4.4. (552ACW) COMSEC materials will be inventoried, and keying devices (except SKL) will be zeroized and returned to the COMSEC vault.

6.5.4.5. (552ACW) The CSO will notify the MCC of the time the maintenance codes were passed to the Command Post.

6.5.4.6. (552ACW) After power down, the CDMT will purge the line printer printouts of all CDMT-related material. The CDMT-related printouts are FOUO and will be destroyed (as required). Any remaining printouts will be classified **SECRET Releasable CMC/552 RAF/RAAF Exchange Officers** and the MCC will be notified of their existence. If appropriate, the MCC/ASO/ECO may downgrade the security classification. Any classified printouts will be handed over to the ASO/ECO (as applicable) for interim storage in their classified kit and will be available for Intel debriefing or destroyed.



**6.5.5. (552ACW) Post-Flight Procedures.**

6.5.5.1. **(552ACW)** Any requirements for data reduction products require completion of 552 ACW Form 29, Data Reduction Request. The requesting individual will specify the reason for the data reduction (i.e. downed aircraft, a significant event) and the specific mission number, date and times that the data reduction is required for. The form(s) will be emailed to 552 ACNS/SCOI (Database/Infrastructure). 552 ACW Form 6, Program Incident Report (PIR), will be forwarded to the Software Configuration Flight, if the crew observed any software problems.

6.5.5.2. **(552ACW)** The MCC will ensure the mission software kit is safeguarded by a crewmember during the maintenance debrief.

6.5.5.3. **(552ACW)** Storage of COMSEC on-board the aircraft is prohibited unless a GSA safe is onboard.

DANIEL J. DARNELL, Lt Gen, USAF  
DCS, Operations, Plans & Requirements

**(552ACW)**

Patricia D. Hoffman, Colonel, USAF  
Commander, 552 Air Control Wing

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 11-202V3, *General Flight Rules*, 05 April 2006

AFI 11-214, *Aircrew and Weapons Director Procedures for Air Operations*, 22 December 2005

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AFI 11-401, *Aviation Management*, 07 March 2007

AFI 21-101, *Aerospace Equipment Maintenance Management*, 29 June 2006

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AFI 33-360, *Publications and Forms Management*, 18 May 2006

AFI 65-503, *US Air Force Cost and Planning Factors*, 04 February 1994

AFMAN 11-217 *Instrument Flight Procedures*, 03 January 2005

AFMAN 37-123, *Management of Records*, 31 August 1994

AFPD 11-2, *Aircraft Rules and Procedures*, 14 January 2005

AFPD 11-4, *Aviation Service*, 01 September 2004

AFTTP 3-1.15, *Tactical Employment – E-3 AWACS*, 31 December 2006

CJCSM 3115.01A, *Joint Data Networks*, 01 September 2004

CJCSM 6120.01C, *Joint Multi-Tactical Data Link (TDL) Operating Procedures*, 22 Nov 2005

ATP-56(B), *Air to Air Refueling*, 01 April 2007

TO 1E-3A-1, *Flight Manual, USAF Series E3B and E3C Aircraft*, 31 July 1999

TO 1E-3A-1-1, *Performance Manual, USAF Series E3B and E3C Aircraft*, 31 July 1999

TO 42C-1-2, *Anti-icing, Deicing, and Defrosting of Parked Aircraft*, 11 May 2007

**Adopted Forms:**

AF Form 847, *Recommendation for Change of Publication*

AFTO Form 781, *ARMS Aircrew/Mission Flight Data Document*

AFTO Form 781A or H, *Maintenance Discrepancy and Work Document or Aerospace Vehicle Flight Status and Maintenance Document*

DD Form 365-4, *Weight and Balance Clearance Form F*

***Abbreviations and Acronyms***

**A3**—Director of Air and Space Operations

**AACS**—Airborne Air Control Squadron

**AAR**—Air-to-Air Refueling  
**AC**—Aircraft Commander  
**ACC**—Air Combat Command  
**ACE**—Airborne Command Element  
**ACG**—Air Control Group  
**ACO**—Airspace Control Order  
**ADIZ**—Air Defense Identification Zone  
**ADS**—Audio Distribution System  
**AFA**—Air Force Academy  
**AFB**—Air Force Base  
**AFRC**—Air Force Reserve Command  
**AFROTC**—Air Force Reserve Officer Training Corps  
**AFSIRS**—Air Force Spectrum Interference Reporting System  
**AFTO**—Air Force Technical Order  
**AGL**—Above Ground Level  
**AHRS**—Altitude and Heading Reference System  
**AO**—Area of Operation  
**AOC**—Air Operations Center  
**AOR**—Area of Responsibility  
**ARCP**—AAR Control Point  
**ARCT**—AAR Control Time  
**ARIP**—AAR Initial Point  
**ARMS**—Aviation Resource Management System  
**ART**—Airborne Radar Technician  
**ARTCC**—Air Route Traffic Control Center  
**ARU**—Airborne Radar Unit  
**ASO**—Air Surveillance Officer  
**ASOC**—Air Support Operations Center  
**AST**—Air Surveillance Technician  
**ATC**—Air Traffic Control  
**ATO**—Air Tasking Order  
**AWACS**—Airborne Warning and Control System

**AWO**—Air Weapons Officer  
**BDT**—Battle Director Technician  
**BMC**—Basic Mission Capable  
**BRNAV**—Basic Area Navigation  
**BTH**—Beyond the Horizon  
**C2**—Command and Control  
**CAF**—Combat Air Forces  
**CAMS**—Computer Automated Maintenance System  
**CAP**—Combat Air Patrol  
**CC**—Commander  
**CCCS**—Command and Control Coordinate System  
**CD**—Counterdrug  
**CDMT**—Computer Display Maintenance Technician  
**CDU**—Control Display Units  
**CFG**—Communications Functional Group  
**CMR**—Combat Mission Ready  
**CG**—Center of Gravity  
**CONUS**—Continental United States  
**CP**—Copilot  
**CPS**—Control Power Supply  
**CRC**—Control and Reporting Center  
**CSC**—Central Security Control  
**CSG**—Computer Support Group  
**CSO**—Communications Systems Operator  
**CT**—Communications Technician  
**DETCO**—Detachment Commander  
**DCN**—Datalink Control Network  
**DH**—Decision Height  
**DO**—Director of Operations  
**DR**—Dead Reckoning  
**DRU**—Direct Reporting Unit  
**DV**—Distinguished Visitor

**EA**—Electronic Attack  
**EC**—Electronic Combat  
**ECO**—Electronic Combat Officer  
**EGI**—Embedded GPS INU  
**EMI**—Electro-Magnetic Interference  
**EOB**—Electronic Order of Battle  
**EP**—Electronic Protection  
**EPR**—Exhaust Pressure Ratio  
**ES**—Electronic Support  
**EST**—Electronic Support Team  
**ESC**—Electronic Support Cell  
**ESM**—Electronic Support Measures  
**ETA**—Estimated Time of Arrival  
**ETD**—Estimated Time of Departure  
**EW**—Electronic Warfare  
**FAA**—Federal Aviation Administration  
**FAF**—Final Approach Fix  
**FCT**—Flight Crew Training  
**FDP**—Flight Duty Period  
**FE**—Flight Engineer  
**FIH**—Flight Information Handbook  
**FIT**—Fault Isolation Test  
**FL**—Flight Level  
**FLIP**—Flight Information Publications  
**FOA**—Field Operating Agency  
**FPM**—Feet Per Minute  
**GPS**—Global Positioning System  
**GTACS**—Ground Tactical Air Control System  
**HF**—High Frequency  
**IAW**—In Accordance With  
**ICAO**—International Civil Aviation Organization

**ICN**—Interface Control Net

**ID**—Identification

**IDG**—Integrated Demand Assigned Multiple Access (DAMA)/Global Air Traffic Management (GATM)

**IFF**—Identification, Friend or Foe

**IFR**—Instrument Flight Rules

**IMC**—Instrument Meteorological Conditions

**INS**—Inertial Navigation System

**INU**—Inertial Navigation Unit

**IP**—Instructor Pilot (an “I” prefix designates an instructor in that crew position, i.e., IMCC)

**JCS**—Joint Chiefs of Staff

**JFACC**—Joint Force Air Component Commander

**JICC**—Joint Information Coordination Center

**JICO**—Joint Interface Control Officer

**JSTARS**—Joint Surveillance Target Attack Radar System

**JTAO**—Joint Tactical Air Operations

**JTIDS**—Joint Tactical Information Distribution System

**LAT**—Latitude

**LONG**—Longitude

**MAC**—Mean Aerodynamic Chord

**MAJCOM**—Major Command

**MAP**—Missed Approach Point

**MCC**—Mission Crew Commander

**MCT**—Mission Crew Training

**MDA**—Minimum Descent Altitude

**MEGP**—Mission Essential Ground Personnel

**MEL**—Minimum Equipment List

**MET**—Mission End Time (AFRC only)

**MRU**—Military Radar Unit

**MSL**—Mean Sea Level

**Nav**—Navigator

**NECOS**—Net Control Station

**NM**—Nautical Mile

**NORAD**—North American Aerospace Defense Command

**NOTAMs**—Notices to Airmen

**NWRO**—NORAD Weapons Resource Officer

**OBS**—On-Board Spare

**OG**—Operations Group

**ONC**—Operational Navigation Chart

**OPCON**—Operational Control

**OPLAN**—Operations Plan

**OPORD**—Operations Order

**OPTASK**—Operation Task

**PA**—Public Address

**P-Sortie**—Proficiency Sortie

**PACAF**—Pacific Air Forces

**PDS**—Passive Detection System

**PIC**—Pilot in Command

**QC**—Quality Control

**RAIM/FDE**—Receiver Autonomous Integrity Monitoring/Fault Detection and Exclusion

**RCR**—Runway Condition Reading

**RF**—Radar Frequency

**RNAV**—Area Navigation

**RNP**—Required Navigation Performance

**ROE**—Rules of Engagement

**RICO**—Regional Interface Control Officer

**RP-1**—Readiness Posture One

**RP-3**—Readiness Posture Three

**RP-15**—Readiness Posture Fifteen

**RSC**—Runway Surface Condition

**RSP**—Readiness Spares Package

**R/T**—Receive/Transmit

**RVSM**—Reduced Vertical Separation Minimums

**SARM**—Squadron Aviation Resource Management

**SD**—Senior Director

**SEFE**—Standardization/Evaluation Flight Examiner

**SICO**—Sector Interface Control Officer

**SID**—Standard Instrument Departure

**SIF**—Selective Identification Feature

**SIM**—Simulator/Simulation

**SM**—Statute Mile

**SOF**—Supervisor of Flying

**SPINS**—Special Instructions

**SRT**—Scheduled Return Time (AFRC only)

**SST**—Senior Surveillance Technician

**STAR**—Standard Terminal Arrival Route

**TACAN**—Tactical Air Navigation

**TACON**—Tactical Control

**TACOPDAT**—Tactical Operation Data

**TACS**—Theater Air Control System

**TCAS**—Traffic Collision Avoidance System

**TD**—Tabular Display

**TOLD**—Takeoff/Landing Data

**TRT**—Takeoff Rated Thrust

**TSF**—Tactical Site Files

**TSN**—Track Supervision Net

**UHF**—Ultra-High Frequency

**USB**—Upper Side Band

**USMTF**—United States Message Text Format

**VDP**—Visual Descent Point

**VFR**—Visual Flight Rules

**VHF**—Very High Frequency

**VIP**—Very Important Person

### *Terms*

**Aircrew**—Use this term to describe the complete complement of personnel required to fly an operational mission. It composes both the flight crew and the mission crew.



**Critical Phases of Flight**—Critical phases of flight are takeoff, air to air refueling, flight below 5,000 feet AGL, approach, landing, and any other maneuver listed in this instruction requiring IP/SEFE supervision.

**Flight Crew**—The flight crew is responsible for the safe ground and flight operations of the E-3 aircraft. It consists of an AC, FP or CP, Nav, and FE. For purposes of this instruction, Flight Crew Training (FCT) personnel are considered flight crew members; however, contractor personnel will not occupy primary E-3 crew positions during critical phases of flight.

**Group Commander**—For sorties under AFRC OPCON, the 970<sup>th</sup> Airborne Air Control Squadron Operations and Training (O and T) officer (or designated representative) acts as the applicable group commander.

**Instructor/Standardization Evaluation Flight Examiner (SEFE) Supervision**—Instructor/SEFE supervision requires an instructor/SEFE who is qualified and current in the position and the maneuver that will be performed. Individuals not qualified or current in the aircraft, require instructor/SEFE supervision for the activity in which they are unqualified or noncurrent. For unqualified or noncurrent pilots, IP/SEFE supervision requires the IP/SEFE to be in one of the pilots' seats with immediate access to the controls while the maneuver is being performed. For all other crewmembers, instructor/SEFE supervision requires over-the-shoulder observation of the unqualified/non-current crewmember. During critical phases of flight, flight crew instructors/SEFEs are allowed to stand, all others will be at the discretion of the PIC.

**Mission Crew**—The mission crew consists of those individuals responsible for the command, control, surveillance, communications/electronic, and management functions, to include the control and monitoring of assigned aircraft, sensor management, internal and external communications management for mission operations, and onboard systems maintenance. It consists of the Mission Crew Commander (MCC), Senior Director (SD), Air Weapons Officer (AWO), Air Surveillance Officer (ASO), Electronic Combat Officer (ECO), Senior Surveillance Technician (SST), Air Surveillance Technician(s) (AST), Computer Display Maintenance Technician (CDMT), Airborne Radar Technician (ART), Communications Systems Operator (CSO), and the Communications Technician (CT).

**Mission End Time (MET)**—(AFRC only) The scheduled day and time a flight crew is planned to return to home station from an exercise or deployment. The MET will be published in the monthly Operations Plan, rotation schedule, flying schedule, and/or OPORD, as necessary. The MET is the baseline for computing Scheduled Return Time.

**Mission Essential Ground Personnel**—Individual who perform unique support duties directly related and essential to the particular aircraft or mission being flown. The OG/CC (or equivalent) with operational control of the aircraft being flown grants MEGP status.

**NORAD Battle Staff**—The battle staff assists the crew performing aerial operations within the NORAD area of operations (AO). The battle staff is responsible for managing the air battle and carrying out the required command and control functions. It has the responsibility and authority, as directed by the appropriate commander, to ensure the most effective use of assigned resources to accomplish the mission. The Battle Director Technician(s) (BDT) are ACC/PACAF E-3 crewmembers specifically trained to support the NORAD mission. Supported commanders may also provide a NORAD Airborne Battle Commander (NABC) and NORAD Weapons Resource

Officer (NWRO). PACAF/AFRC E-3 crewmembers will be trained and certified by local procedures using a command approved syllabus.

**Operational Control (OPCON)**—Command authority that may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command (command authority) and may be delegated within the command. Operational control is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. Operational control should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions; it does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training.

**Squadron Aviation Resource Management (SARM)**—The office responsible for, but not limited to publishing flight crew orders, flight and mission crew kits, and tracking the squadron's aircraft locations.

**Scheduled Return Time (SRT)**—(AFRC only) A force management tool used by the on-scene commander to assure return of the Reserve associate personnel to home station before the expiration of their active duty orders. The SRT is calculated MET plus 24 hours.

**Tactical Control (TACON)**—Command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed direction and control of movements or maneuvers within the operational area necessary to accomplish missions or tasks assigned. Tactical control is inherent in operational control. Tactical control may be delegated to, and exercised at any level at or below the level of combatant command. Tactical control provides sufficient authority for controlling and directing the application of force or tactical use of combat support assets within the assigned mission or task.

**Transition**—Practice multiple takeoffs, simulated emergency patterns, low approaches and touch and go landings. Transition timing begins when the aircraft crosses the threshold on the first approach.

**Wing Commander**—For sorties under AFRC OPCON the 513<sup>th</sup> ACG Commander (or designated representative) acts as the WG/CC.

## Attachment 2

### E-3 BAGGAGE AND EQUIPMENT LOADING

#### A2.1. Flight Engineer Responsibilities:

A2.1.1. Verify an AFTO Form 781A entry was made when On-Board Spare (OBS) kits are loaded.

A2.1.2. Ensure the removal of the forward two metal boxes of the OBS kits after arrival at a TDY location, if the stay will be longer than 3 days.

A2.1.3. Ensure only enough cleaning supplies are stored in the galley compartment to clean the area for one mission. Store the remaining cleaning supplies and all onboard bench stock in the dedicated crew chief box in the aft lower lobe.

#### A2.2. Loading Procedures.

The following loading procedures apply to all E-3 operations. For more specific guidelines, refer to the following T.O.s: 1E-3A-1, 1E-3A-5-1, 1E-3A-5-2, and 1E-3A-2-7.

A2.2.1. OBS Kits. An OBS kit consists of as many as five metal boxes and one fiberglass box containing an inertial navigation unit (INU). If maintenance requires OBS kits, install the five metal boxes in the forward lower lobe using the rail system described in T.O. 1E-3A-2-7. Any other method of securing the metal boxes in the forward lower lobe is not acceptable. Secure the INU in the “J” compartment with cargo straps. Weight of OBS kits vary. The actual weight is annotated on each box. The crew chief will be responsible for recording the weights of each box and its location with an AFTO Form 781A entry. For mission planning purposes, use the standard weight of 650 pounds in the forward lower lobe and 127 pounds in “J” compartment. Make adjustments on DD Form 365-4 as necessary. After arrival at a TDY location, if the stay will be longer than 3 days, remove at least the forward two metal OBS kit boxes from the aircraft to allow for better access to the area for firefighting, etc., if the location has a means of securing the kits.

A2.2.2. Technical Orders. Carry one case of T.O.s when an OBS kit is loaded. Store in the “J” compartment and secure with cargo straps.

##### A2.2.3. Tool Box:

A2.2.3.1. Secure the inflight tool box carried by the CT in the “J” compartment with cargo straps.

A2.2.3.2. When a crew chief tool box is required, secure it at the tiedown point in the aft lower lobe or in “J” compartment with cargo straps.

A2.2.4. Crew Baggage. In order to facilitate loading, crewmembers and PAX will maximize the use of soft luggage (i.e., issued B-4, A-3, and hang-up bags) for exercises and deployments. Crewmembers should be aware that proper aircraft/loading requires strapping the load down tightly in order to prevent load shifting. Crewmembers are normally allowed a baggage limit of 25 pounds on short term TDYs (7 days or less) and 55 pounds on longer deployments. However, if on mission planning day, weight appears to be critical, the AC and FE will determine the maximum allowable baggage weight and inform crewmembers and passengers of how much they will be allowed to carry. Baggage will be secured at a height

no higher than 40 inches in “J” compartment. Small, carry-on type baggage may be stacked higher than 40 inches provided they are secured at or below 40 inches.

A2.2.5. Jackets and Garment Bags. Jackets and lightweight garment bags may be stored on the clothing rack next to the lavatory.

A2.2.6. SF6. Up to four additional SF6 bottles, empty or full, may be stored in the aft lower lobe. Bottles will be secured in the SF6 storage racks, if the aircraft is modified. If not modified, use cargo straps, and up to four small bottles can be stored.

A2.2.7. RMA Kits. Store RMA kits in the area under the DDI at seat 8.

A2.2.8. Additional Baggage/Equipment. “J” compartment loading will be accomplished IAW T.O. 1E-3A-5-2.

A2.2.9. General:

A2.2.9.1. Mission crewmembers should store professional gear (i.e., pubs/helmet bag) either in “J” compartment or at their individual consoles in a manner that will minimize movement of gear.

A2.2.9.2. Compartment weight limitations will be IAW T.O. 1E-3A-1.

A2.2.9.3. Crew bunks will only be used for storing pillows and blankets which will be secured by seatbelts. Nothing will be stored beneath the bunks. Floor rings used to secure bunks to the floor will not be used for luggage/equipment tiedown.

### Attachment 3

#### E-3 PASSENGER BRIEFING GUIDE

**A3.1. Required Briefing Items.** The following items are required briefing items unless individuals have been previously briefed during the pre-mission briefing:

- A3.1.1. AC/MCC names.
- A3.1.2. ETA to destination.
- A3.1.3. Cruise altitudes.
- A3.1.4. Weather enroute and at destination.
- A3.1.5. Passenger on/off-load procedures.

**A3.2. Emergency Signals:**

- A3.2.1. Ground Evacuation:
  - A3.2.1.1. Signal for evacuation.
  - A3.2.1.2. Primary/secondary exits.
  - A3.2.1.3. Escape slides.
  - A3.2.1.4. Assembly area.
- A3.2.2. Crash Landing/Ditching:
  - A3.2.2.1. Signal for preparation.
  - A3.2.2.2. Signal to brace for impact.
  - A3.2.2.3. Brace position.
- A3.2.3. Loss of Pressure:
  - A3.2.3.1. Signal.
  - A3.2.3.2. Oxygen requirements.

**A3.3. Oxygen/Survival Equipment:**

- A3.3.1. How to check/use assigned oxygen source.
- A3.3.2. LPU—fitting and use (if applicable).
- A3.3.3. Survival suit—use (if applicable).

**A3.4. Restrictions:**

- A3.4.1. Reading lights.
- A3.4.2. Lavatory.
- A3.4.3. Seat belts.
- A3.4.4. Bunks.
- A3.4.5. Smoking and smokeless tobacco are prohibited.

A3.4.6. Operation of electric/electronic devices (except watches, hand held non-print calculators, hearing aids, medically prescribed physiological instrumentation, and portable voice recorders when approved by MAJCOM) will be IAW AFI 11-202V3. Electronic flash attachments will not be used.

A3.4.7. Transportation or use of narcotics, marijuana, or other dangerous drugs is prohibited unless approved by proper medical/legal authority.

A3.4.8. Explosive, flammable and corrosive materials, or materials with toxic or irritating fumes are prohibited unless approved by competent authority.

**A3.5. Galley Area:**

A3.5.1. Restrictions during refueling.

A3.5.2. Oven use.

A3.5.3. Coffee.

A3.5.4. Water.

A3.5.5. Flight lunches.

A3.5.6. Noise.

**A3.6. Miscellaneous:**

A3.6.1. Follow E-3 crewmember instructions at all times.

A3.6.2. If passengers are onboard during the crew coordination drill, passengers will be briefed but will not participate.

**Attachment 4 (Added-552ACW)****DEPLOYMENT/CONTINGENCY ACTIONS**

**A4.1. (552ACW) Purpose:** This attachment establishes procedures for deployment to and redeployment from forward operating locations.

**A4.2. (552ACW) Currency requirements:** Squadrons will establish procedures to ensure crewmembers scheduled for deployments will not become delinquent in flying/ground training requirements during the period of TDY.

A4.2.1. **(552ACW)** Squadron flight managers will review the following currency requirements on all crewmembers scheduled for deployment prior to publishing flight orders:

A4.2.1.1. **(552ACW)** Life support training complete.

A4.2.1.2. **(552ACW)** Flight physical complete.

A4.2.1.3. **(552ACW)** Physiological training complete.

A4.2.1.4. **(552ACW)** Evaluations required by AFI 11-202V2 to include qualification and mission evaluations.

A4.2.1.5. **(552ACW)** Instrument refresher training complete (Pilots/Navigators only).

A4.2.1.6. **(552ACW)** Prepare Mobility Bag IAW “Sentry Warrior” Plan, AFI 10-403, and TAFBP 10-403..

A4.2.1.7. **(552ACW)** Review Mobility Folder.

A4.2.1.8. **(552ACW)** Periodic (“180 day”) testing complete.

A4.2.1.9. **(552ACW)** CRM training complete.

A4.2.1.10. **(552ACW)** Any other training requirements, which may preclude an individual from maintaining CMR status while deployed.

A4.2.2. **(552ACW)** Crewmembers scheduled for deployment who may become delinquent during the deployment period will accomplish the item(s) in which they may become delinquent IAW AFI 11-202V1, Aircrew Training, para 4.7, and AFI 11-202V2, Aircrew Standardization/ Evaluation Program, paras 5.2.6.3 and 5.2.6.4., prior to deployment.

**A4.3. (552ACW) Out-processing:** Deploying crewmembers will report to their squadron mobility section prior to deployment for out-processing instructions. Squadron mobility personnel will provide checklists for out-processing through MPF, Finance and Medical Clearance when a mobility processing line has not been arranged.

**A4.4. (552ACW) Mission planning:** Deployment mission planning will normally be conducted the last duty day prior to deployment.

**A4.5. (552ACW) Crew baggage/cargo loading:**

A4.5.1. **(552ACW)** All non-crew baggage and cargo on board will be manifested. When maintenance onloads cargo/equipment items not listed on the Chart A, enter a “NOTE” in the AFTO Form 781A, to include the type of equipment/item, weight, and location. The deploying squadron will arrange for a high-lift truck to be available two and one half hours

prior to scheduled takeoff time. The crew baggage detail will upload baggage aboard the E-3 under the supervision of a flight engineer. Aircraft commanders carrying mail to deployed locations must ensure contents do not violate customs regulations.

A4.5.2. **(552ACW) Crew baggage** (soft sided only), seven days or less, is 25 pounds per person. For eight days or more, crewmembers are authorized 55 pounds. These restrictions are required due to J compartment baggage plate weight limitations.

A4.5.3. **(552ACW) NOTE:** Contingency baggage requirements will be listed in the BSD. If not specified, the following guidance will be as used. All baggage will be soft sided, luggage carriers, if used, must be placed in the crewmember's baggage. All crewmembers are limited to one overnight bag (36 hour), one A-3 bag, and professional gear. The overnight bag will fit in the designated sizing box or it will not be loaded. All additional bags will be palletized for airlift. Any recreational equipment, which does not fit in the bags, will not be loaded. The A-3 bag will include the required chemical gear (aircrew ensemble), which normally includes the A-1, C-1, and D-1 bags (approximate weight 37 lbs). This leaves 18 lbs in the A-3 mobility bag for clothing to support the extended deployment.

A4.5.4. **(552ACW) NOTE:** If the AC directs the carrying of ground crew and aircrew chemical bags, personal clothes will be limited to the overnight bag. All other personnel baggage will be palletized for airlift support.

**A4.6. (552ACW) Passengers:** Operational squadrons will provide 552 OSS/OSOS a list of personnel requesting flight on deploying E-3 aircraft in passenger status. 552 OSS/OSOS will obtain permission from 552 ACW/CC and provide a copy of authorization to the squadrons. Operational squadrons will be responsible for manifesting and clearing passengers for flight on deploying wing aircraft. The following procedures outline squadron responsibilities:

A4.6.1. **(552ACW)** The operational squadron responsible for the sortie will prepare the DD Form 2131 and designate a crew member to escort passengers. The designated crewmember will accomplish the passenger escort duties and brief passengers IAW this supplement. The squadron will also arrange with the 72 ABW/SPS to have law enforcement personnel at the departure point to perform anti-hijack searches.

A4.6.2. **(552ACW)** Squadron personnel will meet the passengers at the departure point to check identification cards and travel orders (leave or TDY orders) and ensure that all passengers are manifested.

A4.6.3. **(552ACW)** The responsible operational squadron will ensure that passengers and their baggage are searched by law enforcement officers and ensure that passengers load their baggage on the vehicle to be used for transportation to the aircraft. Passengers will not be allowed any further contact with baggage or visitors prior to departure. Law enforcement officers may be released at this time.

**A4.7. (552ACW)** The passengers will be escorted to the crew briefing area and turned over to the designated crewmember. At this point, responsibility for the passengers is passed to the crewmember.

**A4.8. (552ACW) Enroute Procedures:**

A4.8.1. **(552ACW)** Mission equipment: Mission systems, including redundant units, must be fully checked out IAW appropriate directives while enroute to deployed locations.



Equipment problems preventing or jeopardizing mission accomplishment will be communicated to the applicable group commander or designated representative through the Command Post and the appropriate squadrons. The applicable group commander has waiver authority to this requirement whenever operational restrictions prevent minimum manning to perform system check out.

A4.8.2. **(552ACW) Training:** In order to maximize training opportunities, the MCC will develop a training plan to be implemented during the sortie. In addition to DPS Checkout, Surveillance RADAR/IFF/LCS Checkout, PDS Checkout, and Communications Systems Checkout by the technicians, this training plan may include but is not limited to maritime sensor employment, low velocity detection (LVD), weapons simulation and Crew Coordination Drill.

**A4.9. (552ACW) Communications:** On all deployments, pilots will maintain communications with ATC as outlined in AFI 11-202V3. The CSO will ensure that communications links necessary to maintain flight safety are readily available to the appropriate crewmembers during all transoceanic flights. The CSO will work in close coordination with the pilot and navigator. The CSO will make the following radio calls, which may be modified by the aircraft commander:

A4.9.1. **(552ACW)** As soon as practical after departure, pass takeoff time, departure location, and destination ETA to Command Post. The Command Post will ensure the above information is passed to the destination Command Post/detachment operations section.

A4.9.2. **(552ACW)** Establish communications link with a facility capable of air/ground phone patch service to support in-flight requirements.

A4.9.3. **(552ACW)** Establish contact and maintain a continuous listening watch with the appropriate ICAO oceanic facility as soon as possible.

A4.9.4. **(552ACW)** Request, copy and/or send appropriate oceanic clearances, position reports and flight plan changes to/from ICAO facilities.

A4.9.5. **(552ACW)** The following will be reported to the Command Post and the destination squadron/detachment operations section:

A4.9.5.1. **(552ACW)** Immediately after completion of air refueling, pass actual onload, total fuel on board, destination ETA, estimated fuel overhead at destination and ETA/fuel consumption from destination to weather alternate.

A4.9.5.2. **(552ACW)** Revised maintenance status/ETA when within UHF contact of the destination squadron/detachment section.

A4.9.5.3. **(552ACW)** OPSEC/COMSEC procedures will be used.

#### **A4.10. (552ACW) Arrival:**

A4.10.1. **(552ACW)** Customs inspectors will board the aircraft immediately after landing to perform customs inspections. Personnel will not be permitted to deplane until cleared by customs officials.

A4.10.2. **(552ACW)** After clearance is received from customs and the squadron/detachment Duty Officer, the crew baggage detail will off-load crew and passenger baggage.

A4.10.3. **(552ACW)** All crewmembers will proceed directly to the squadron/detachment to turn in kits, forms, and medical records, and receive an orientation briefing. A more comprehensive operations briefing will be provided on the following day.

A4.10.4. **(552ACW)** Maintenance debriefing will be as directed by the deployment location procedures.

**Attachment 5 (Added 552 ACW)**  
**FLIGHT CREW CONTENTS**

**A5.1.**

Each flight kit (forms folder) will include the following forms and publications in the minimum quantity indicated ( <b>Note 2</b> ): <u>Forms</u>		<u>No</u>
1.	DD Form 175, Military Flight Plan	2
2.	DD Form 365-4, Weight and Balance Clearance Form F	5
3.	DD Form 1801, DOD International Flight Plan	2
4.	Customs Form 6059B, Customs Declaration (Department of Transportation)	40
5.	AF Form 15, USAF Invoice	2
6.	AF Form 2131, Passenger Manifest	2
7.	AF Form 457, USAF Hazard Report	2
8.	AF Form 651, Hazardous Air Traffic Report	2
9.	AF Form 853, Air Force Wildlife Strike Report	1
10.	AFTO Form 117, E-3 IATP Flight Log	4
11.	552 OG Form 9, E-3 Pilot TOLD Card	4
12.	552 OG Form 14, Takeoff and Landing Data Worksheet (TOLD)	2
13.	552 OG Form 33, AWACS Flight Plan	2
14.	552 OG Form 34, AWACS Flight Log	2
15.	552 ACW Form 41, 552 ACW Aircraft Incident Worksheet	1
16.	552 OG Form 49, Mission Summary	2
17.	552 OG Form 86, Fuel Planning Log / Manual Fuel Planning Worksheet	2
18.	Customs Form 7507, General Declaration	2
19.	552 OG Form 121, Ground Training Accomplishments for Flight and Mission Crew ( <b>Note 1</b> )	2
20.	552 OG Form 123, Flight/Sim Training Accomplishments for Flight Crew ( <b>Note 1</b> )	5

21. 552 OG Form 31, E-3 Engine Condition Monitor/Compressor Stall In-flight Data Worksheet 2

**Note 1:** This form is for 552 ACW use only.

**Note 2:** Instructions for completion of these forms are provided in 552 OGI 10-7, Volume 1, E-3 Flight Crew Forms.

**Attachment 6 (Added 552 ACW)**  
**MISSION CREW CONTENTS**

**A6.1.**

Each mission kit will include the following forms and publications in the minimum quantity indicated (**Note 2**):

<u>Item</u>	<u>No</u>
1. AF Form 1522, ARMS Additional Training Accomplishment Report	2
2. 552 OG Form 2, Aircraft Predeployment In-Flight Checklist	5
3. 552 ACW Form 6, Program Incident Report	2
4. 552 ACW Form 8, E-3 Database Change Request (DBCR)	2
5. 552 OG Form 11, Sensor Data Log	2
6. 552 OG Form 20, CSO, TDL-A/LINK-16 Worksheet	5
7. 552 OG Form 23, E-3 EA/EP Log	5
8. 552 ACNS Internal Form 1, Operational Master/Recording RMA Transfer Log	5
9. 552 OG Form 25, CSO Communications Log	5
10. 552 ACW Form 29, Data Reduction Request	2
11. 552 OG Form 32, CSO Communications Configuration Worksheet	5
12. 552 OG Form 36, Computer Mission Log	5
13. 552 OG Form 42A, ART Mission Log (RSIP)	5
14. 552 OG Form 46, Console Operator's Communications Worksheet	5
15. 552 OG Form 47, AWACS Briefing Guide	5
16. 552 OG Form 48, Senior Director Mission Log	5
17. 552 OG Form 49, Mission Summary	5
18. 552 OG Form 50, ECO Mission Planning Worksheet	5
19. 552 OG Form 51, Weapons Activity Flow Sheet	5

20.	552 OG Form 54, Mission Fact Sheet	5
21.	552 OG Form 58, E-3 COMSEC Material Request	2
22.	552 OG Form 61, Counter Drug E-3 Mission Summary	5
23.	552 OG Form 67, Continuation Sheet for 552 OG Forms 36, 42, and 49	5
24.	552 OG Form 72, Counter Drug Mission Summary/Track Log	5
25.	552 OG Form 89, Surveillance Mission Planning Worksheet	5
26.	552 OG Form 111, Recorders Log and Telling Sequence	10
27.	552 OG Form 121, Ground Training Accomplishments for Flight and Mission Crew ( <b>Note 1</b> )	2
28.	552 OG Form 122, E-3 Flying/Sim Training Accomplishments Mission Crew ( <b>Note 1</b> )	5
29.	552 OG Form 198, Comm Tech In-Flight Log	5
30.	SF Form 704, Secret Cover Sheet	4
31.	SF Form 705, Confidential Cover Sheet	2

**Note 1:** These forms are for 552 ACW use only. Use the Training Accomplishment Report (TAR) Instructions for completing these forms.

**Note 2:** Samples and instructions for completion of forms are provided in 552 OGI 10-7, Volume II, E-3 Mission Crew Forms.

### **Publications**

Required in-flight publications will be IAW the Mission Crew Pubs Kit pubs checker maintained by OGV and available on the AWACS Portal.

**Attachment 7 (Added-552ACW)****CONUS FLIP KIT REQUIRED PUBLICATIONS**

**A7.1.** Each CONUS FLIP kit will include the following forms and publications in the minimum quantity indicated. (Exception: 966 AACCS sorties do not require Canadian/Caribbean):

<b><u>Item</u></b>	<b><u>No</u></b>
a. FLIP General Planning, AP1, AP1B	1
b. US IFR Enroute Supplement	2
c. US VFR Enroute Supplement	2
d. Flight Information Handbook	2
e. US Enroute Low Charts (All)	2
f. US Enroute High Charts (All)	2
g. US STARs	3
h. US High Altitude Terminal Approach (All)	3
i. US Low Altitude Terminal Approach (All primary divers listed in Attachment 17, & any planned Emergency Air Fields)	3
j. ALL Change Notice (TCNS, PCNS and ECNS) (When Applicable)	3

**C/E-sortie FLIP kits will also include the following Canadian Publications (except CD missions):**

<b><u>Item</u></b>	<b><u>No</u></b>
a. Canada Flight Supplement	2
b. Canada Enroute Low Charts (All)	2
c. Canada Enroute High Charts (All)	2
d. Canada High and Low Altitude Terminal Approach	3
e. Canada Terminal Change Notice (TCN) (when applicable)	3

**CD mission FLIP kits will also include the following Caribbean Publications (instead of the Canadian Publications):**

<b><u>Item</u></b>	<b><u>No</u></b>
a. Caribbean Enroute Supplement	2
b. Caribbean Enroute Low Charts (All)	2
c. Caribbean Enroute High Charts (All)	2
d. Caribbean Terminal Approach High/Low	3

**Attachment 8 (Added-552ACW)****WORLDWIDE FLIP KIT REQUIRED PUBLICATIONS**

**A8.1.** Each worldwide FLIP kit will include the following forms and publications in the minimum quantity indicated:

<b><u>Item</u></b>	<b><u>No</u></b>
a. All Publications Listed for CONUS Kit	
b. Europe Enroute Supplement	2
c. Europe Enroute Low Charts (ALL)	2
d. Europe Enroute High Charts (ALL)	2
e. Europe Terminal Approach High/Low (ALL)	3
f. Europe VFR Arrival/Departure Routes	2
g. Eastern Europe/Asia Enroute Supplement/Terminal Approach High and Low (ECN/TCN when applicable)	3
h. Eastern Europe/Asia Enroute Charts (ALL)	2
i. Africa Enroute Supplement/Terminal Approach High/Low	3
j. Africa Enroute Charts (ALL)	2
k. Alaska Enroute Supplement	2
l. Alaska Enroute High Charts (ALL)	2
m. Alaska Enroute Low Charts (ALL)	2
n. Alaska Terminal Procedures	3
o. Pacific Enroute Supplement	2
p. Pacific Enroute High/Low Charts (ALL)	2
q. Pacific Terminal Approach High/Low (ALL)	3
r. Caribbean Enroute Supplement	2
s. Caribbean Enroute Low Charts (ALL)	2
t. Caribbean Enroute High Charts (ALL)	2
u. Caribbean Terminal Approach High/Low (ALL)	3
v. FLIP Planning Books (ALL)	1
w. ALL Change Notices (TCNS, PCNS, and ECNS) (when applicable)	3
x. Jeppeson Enroute and Terminal Instrument Charts (when applicable and approved by HHQ)	

**NOTE:** ACs must ensure that sufficient low altitude, FLIP enroute, and terminal documents are carried to provide coverage desired for their particular mission.



## Attachment 9 (Added-552ACW)

## AFI 11-2E-3V3\_552ACWCL-1, FLIGHT MANAGEMENT GO/NO-GO CHECKLIST

Mission

Date(s) of Flight:

Number:

## ALL PERSONNEL ON FLIGHT AUTHORIZATIONS

ITEMS REQUIRED FOR ALL PERSONNEL ON FLIGHT AUTHORIZATION REGARDLESS OF CATEGORY.			
	YES	ERRORS	N/A
<b>GROUNDING ITEMS (WILL NOT FLY)</b>		SEE NOTE 1	
1. Check individuals have initialed on Loadlist			
2. Check DNIF status of individuals			
3. Current Flight Physical			
4. Current Altitude Chamber			
5. Ground Egress Training (LS08)			
6. Bold Face examinations for current month accomplished. (PILOTS/COPILOTS only) (Failure of Bold Face examination requires successful reaccomplishment before flying. Contact SQ/DO for waiver of 48 hours requirement prior to retake of examination.)			
<b>BQ/NON-CURRENT ITEMS (NEED INSTRUCTOR)</b>			
7. Check all Ground training events are completed			
8. Check all Flying currencies are up-to-date			
9. List all IQT, MQT and BQ aircrew			
<b>Host Nation Riders (HNR) and T-5 Aircrew</b>			
T-5 crew member must present or have a letter/message on file from individual's parent organization certifying individual is current			
<b>VISITING AIRCREW</b>			
Visiting aircrew members must have a letter on file authorizing flight activity on 552 ACW aircraft sign by Chief,			

Wing Scheduling (552 OSS). Ref. 552 OSS O1 11-1			
<b>E-3 POSITIONALLY QUALIFIED</b>			
Visiting crewmembers who are positionally qualified on the E-3 aircraft and intend to perform duties in their crew position must present the following: (Ref. AFI 11-2E3 552 ACW SUP 1) (This is kept in Mission Package)			
1. A letter/message from the individual's parent organization certifying individual is current or/			
2. A copy of the AF Form 702 Individual Physiological Training Record.			
3. A copy of the AF Form 1042 Medical Recommendations for Flying or Special Operational Duty.			
4. Present proof of currency for the following training:			
a. Water Survival (LL03, required every 2 years)			
b. Aircrew Chemical Defense Equipment (LL04, required annually)			
c. Aircrew Life Support Equipment (LL06, required annually)			
d. Egress, Non-Ejection Seat (LL08, required annually)			
e. Combat Survival, Low Threat (SS02, required every 2 years)			
f. Flight Evaluation Expiration Date (AA01)			
g. Instrument Expiration Date (Pilot/Copilot only)			
h. Currency Data			
<b>NON-E-3 QUALIFIED</b>			
1. Must have proof of aeronautical orders by either a message/letter or a copy of their aeronautical orders.			
2. A letter/message from their parent organization certifying individual is current or/			
3. A copy of the AF Form 702 Individual Physiological Training Record.			
4. A copy of the AF Form 1042 Medical Recommendations			

for Flying or Special Operational Duty.			
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**ALL PERSONNEL ON PASSENGER MANIFEST****ITEMS REQUIRED FOR ALL PASSENGERS ON DD FORM 2131 PASSENGER MANIFEST**

All passengers must have a letter authorizing to fly on 552 ACW aircraft signed by Chief, Wing Scheduling (552 OSS/OSOS).			
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Annotate passenger's status in the remarks section of DD Form 2131 Passenger Manifest (e.g. incentive or familiarization).			
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All passengers on a Spouse Orientation Flight must sign a DD Form 1381 Air Transportation Agreement Form (Form will be kept in the SARM).			
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**NOTE 1: See back page for list of errors****TRAINING CHECKED BY:**\_\_\_\_\_  
(SARM REP)**TRAINING CERTIFIED****BY:** \_\_\_\_\_

(AC or MCC)

**DO/REPRESENTATIVE****REVIEW:** \_\_\_\_\_

		<b>Flight Management</b> (This area will be completed by Flight Management Rep)		<b>AC or MCC</b> (This area will be completed by AC or MCC)	
<b>Name:</b>	<b>Crew Position:</b> (4 char)	<b>Errors:</b> <b>Event Id:</b> <b>Description:</b> (Grounding or BQ'ing):	<b>Action Taken:</b> (e.g. off flight, instructor's name)	<b>A/C or MCC</b> <b>Initials</b> <b>Errors were corrected</b>	<b>SARM REP.</b> <b>VERIFIED</b>


**Attachment 10 (Added-552ACW)****INITIAL COORDINATION MEETING GUIDE****(AC/MCC Conduct) (BRIEF ONLY APPLICABLE ITEMS)**

**A10.1. (552ACW) Purpose.** Foster team building through the use of Operational Risk Management and Cockpit/Crew Resource Management techniques.

**A10.2. (552ACW) Security**  
**Commander**

*Aircraft*

A10.2.1. (552ACW) Briefing area security

A10.2.2. (552ACW) Briefing classification

**A10.3. (552ACW) Sign in**

A10.3.1. (552ACW) Roll Call

A10.3.2. (552ACW) DV / PAX

A10.3.3. (552ACW) Flight Orders / Passenger Manifest (# on board\_\_\_\_\_)

A10.3.4. (552ACW) Recall Roster

A10.3.5. (552ACW) Pubs Folder checked / signed off

A10.3.6. (552ACW) Review Go/No-Go

A10.3.7. (552ACW) Meal Request

**A10.4. (552ACW) Flight Specifics**

A10.4.1. (552ACW) Mission Number

A10.4.2. (552ACW) Aircraft C/S

A10.4.3. (552ACW) Mission C/S

A10.4.4. (552ACW) Aircraft Commander

A10.4.5. (552ACW) Mission Crew Commander

A10.4.6. (552ACW) Senior Enlisted aircrew member

A10.4.7. (552ACW) Primary / Spare aircraft tail number

**A10.5. (552ACW) Timing**

A10.5.1. (552ACW) Crew Rest begins

A10.5.2. (552ACW) Show Time

A10.5.3. (552ACW) Execution Briefing

A10.5.4. (552ACW) Takeoff

A10.5.5. (552ACW) ARCT

A10.5.6. (552ACW) On Station

A10.5.7. (552ACW) Off Station

A10.5.8. (552ACW) Land

**A10.6. (552ACW) Objectives**  
**Commander**

*Mission Crew*

**A10.6.1. (552ACW) Mission Objectives**

A10.6.1.1. (552ACW) MCC brief overall Mission Objectives

A10.6.1.2. (552ACW) All crewmembers develop support objectives (provide MCC w/ copy)

**A10.7. (552ACW) Sequence of Events – Mission Timing**

A10.7.1. (552ACW) Scheduled Weapons activity

A10.7.2. (552ACW) Scheduled Surveillance activity

A10.7.3. (552ACW) Scheduled Electronic Support activity

A10.7.4. (552ACW) Scheduled Air Refueling

A10.7.5. (552ACW) Planned Transition

A10.7.6. (552ACW) Scheduled Battle Staff activity

**A10.8. (552ACW) Training / Currency Requirements & Evaluations**

A10.8.1. (552ACW) AC

A10.8.1.1. (552ACW) Transition

A10.8.1.2. (552ACW) Air Refueling

A10.8.2. (552ACW) MCC

A10.8.3. (552ACW) Weapons

A10.8.4. (552ACW) Surveillance

A10.8.5. (552ACW) Electronic Support

A10.8.6. (552ACW) Battle Staff

A10.8.7. (552ACW) Techs

A10.8.7.1. (552ACW) Emergency Procedures / Crew Coordination drill

A10.8.7.2. (552ACW) QC requirements

A10.8.7.3. (552ACW) Assign Malfunction of the Day (CT, CDMT, ART)

**A10.9. (552ACW) Additional Equipment**

A10.9.1. (552ACW) Extra headsets/comm cords/comm boxes

A10.9.2. (552ACW) Chemical warfare mask

A10.9.3. (552ACW) Training fire fighter's mask

A10.9.4. (552ACW) Video cameras

A10.9.5. (552ACW) Recorders

A10.9.6. (552ACW) OBS kits

A10.9.7. (552ACW) Meals / MREs

A10.9.8. (552ACW) Water

**A10.10. (552ACW) Brief SIIs/OGV Trends**  
*Commander*

*Aircraft Commander/ Mission Crew*

**A10.11. (552ACW) Mission Planning Responsibilities**  
*Commander*

*Aircraft*

A10.11.1. (552ACW) Review Lessons Learned on AWACS Portal

A10.11.2. (552ACW) Know your objectives

A10.11.3. (552ACW) Develop a plan to meet the objectives

A10.11.4. (552ACW) Plan for contingencies

A10.11.5. (552ACW) Thoroughly brief the Mission

**A10.12. (552ACW) Mission Planning Day Schedule**

A10.12.1. (552ACW) Meeting / Brief times

A10.12.1.1. (552ACW) Intel briefing

A10.12.1.2. (552ACW) Coordination meeting

A10.12.1.3. (552ACW) DO brief

A10.12.2. (552ACW) Locations

**Note:** Crews should visit the AWACS Portal –Mission Planning Tab in order to obtain lessons learned for their orbit area, weapons and surveillance airspace, and mute site location. Web Site – <https://portal.awacs.af.mil/frameMissionPlanning.htm>

**Attachment 11 (Added-552ACW)****FLIGHT CREW SPECIALIZED PLANNING GUIDE****(AC Conducts)**

**A11.1. (552ACW) Purpose.** This is a meeting where the open flow of information among all participants is encouraged. Emphasis is on the mission being planned, not slide production. Take advantage of opportunity to do “hangar flying” and training.

**NOTE:**

(\*) Asterisk items will also be reviewed the day of the flight.

Emphasize CRM/ORM. Address “Crunch Points”.

**A11.2. (552ACW) Flight Crew Objectives****A11.3. (552ACW) Flight Crew Training Records Review****A11.4. (552ACW) Weather Considerations****A11.5. (552ACW) Ground Operations**

A11.5.1. (552ACW) NOTAMS , Airfield Status, (NAVAIDS, Construction/Bird Hazards)

A11.5.2. (552ACW) GINS Alignment Procedures/DAFIF Database (current or noncurrent)

**A11.6. (552ACW) Takeoff**

A11.6.1. (552ACW) Data cross-checked

A11.6.2. (552ACW) Normal procedures

A11.6.3. (552ACW) Emergency procedures

**A11.7. (552ACW) Departure**

A11.7.1. (552ACW) SID/Radar vectors

A11.7.2. (552ACW) High terrain/obstacles

A11.7.3. Climb Gradient

**A11.8. (552ACW) Mission Orbit Procedures/LOA Review****A11.9. (552ACW) Fuel Considerations – Bingo(s), Air Refueling, Conservation Plan****A11.10. (552ACW) Air Refueling Procedures (Navigator briefs all items except #7 & #8)**

A11.10.1. (552ACW) AR Track/ARCT/altitudes

A11.10.2. (552ACW) EMCON procedures

A11.10.3. (552ACW) Type Rendezvous

A11.10.4. (552ACW) Alternate methods

A11.10.5. (552ACW) Overrun considerations

A11.10.6. (552ACW) Post Air Refueling procedures

A11.10.7. (552ACW) Emergency/Breakaway procedures (AC)



A11.10.8. (552ACW) Additional considerations (Night, Cell, KC-10) (AC)

**A11.11. (552ACW) \* Recovery/Transition Procedures**

A11.11.1. (552ACW) Destination restrictions/ASRR review

A11.11.2. (552ACW) Arrival procedures/STAR review

A11.11.3. (552ACW) Obstacles / high terrain

A11.11.4. (552ACW) Approach / Airfield Diagram review

A11.11.5. (552ACW) Touch-and-Go procedures

A11.11.6. (552ACW) Seat assignments (training flow)

**A11.12. (552ACW) AFI 11-2E3V3 Briefing Topic (see**

**A11.13. (552ACW) Emergency of the Day (FE briefs)**

**A11.14. (552ACW) Review Lessons Learned**

**A11.15. (552ACW) Special Interest Items & OGV Trends**

**A11.16. (552ACW) Briefing/Training Topics (“Hangar Flying,” etc. )**

**A11.17. (552ACW) Flight Crew Go/No-Go Currencies**

**Attachment 12 (Added-552ACW)****COORDINATION MEETING GUIDE****(AC/MCC conduct-----DISCUSS ONLY APPLICABLE ITEMS)**

**A12.1. (552ACW) Purpose.** This is a meeting where the open flow of information among all crewmembers is encouraged. All available information should be included during this stage of planning. It is understood that some important planning information may not be available until very late in the day or prior to the crew entering crew rest. ACs/MCCs will develop a plan to brief the entire crew at the execution briefing. Emphasis is on the mission being planned, not slide production.

**NOTE:** Crew leadership (AC, MCC, SD, ASO, ECO) must pre-coordinate training requirements for their respective areas in preparation for this briefing. Thorough training record review is required to identify areas where internal and external crew coordination is critical to the mission being planned. Further guidance is available in 552 OGI 11-1.

**A12.2. (552ACW) Security**  
**Commander**

*Aircraft*

A12.2.1. (552ACW) Briefing area security

A12.2.2. (552ACW) Briefing classification

**A12.3. (552ACW) Personnel On-Board**

A12.3.1. (552ACW) Roll Call

A12.3.2. (552ACW) Total on board

**A12.4. (552ACW) Weather**

A12.4.1. (552ACW) Takeoff

A12.4.2. (552ACW) Climb Out

A12.4.3. (552ACW) Enroute

A12.4.4. (552ACW) Orbit

A12.4.5. (552ACW) Air Refueling

A12.4.6. (552ACW) Arrival

A12.4.7. (552ACW) Alternate

**A12.5. (552ACW) Routing**  
**Navigator**

A12.5.1. (552ACW) Routing hazards

A12.5.2. (552ACW) Time to Orbit

A12.5.3. (552ACW) Time to communications with weapons assets (/SD)

A12.5.4. (552ACW) MUTE Site (/)

A12.5.5. (552ACW) Phone Patch agencies (/CSO)

**A12.6. (552ACW) Mission Overview**  
**Commander***Mission Crew*

A12.6.1. (552ACW) \*Objectives

**A12.7. (552ACW) Concept of Operations (CONOPS)**

A12.7.1. (552ACW) Staging base

A12.7.2. (552ACW) Single / multiple E-3 Ops

**A12.8. (552ACW) Timeline** (Emphasize /ORM. Address “Crunch Points”.)

A12.8.1. (552ACW) Discuss specific points in the timeline

A12.8.1.1. (552ACW) Takeoff

A12.8.1.2. (552ACW) Ops Normal - requirements for Ops Normal

A12.8.1.3. (552ACW) On Station - requirements in addition to Ops Normal

A12.8.1.4. (552ACW) Air Refueling

A12.8.1.5. (552ACW) Fighter activity

A12.8.1.6. (552ACW) Voice Tell

A12.8.1.7. (552ACW) MUTE site activity

A12.8.1.8. (552ACW) BDT Format training

A12.8.1.9. (552ACW) EA/EP

A12.8.1.10. (552ACW) Off Station - requirements

A12.8.1.11. (552ACW) QC

A12.8.1.12. (552ACW) Power Down timing

**A12.9. (552ACW) Orbit considerations**

A12.9.1. (552ACW) Scheduled Airspaces (SD)

A12.9.2. (552ACW) Radar and radio coverage (SD/)

A12.9.3. (552ACW) ()

A12.9.4. (552ACW) Orbit type (/)

A12.9.5. (552ACW) MUTE site ()

A12.9.6. (552ACW) Orientation to fighter activity (SD//)

A12.9.7. (552ACW) Other E-3s in the area

**A12.10. (552ACW) System Requirements**  
**Commander***Aircraft*

A12.10.1. (552ACW) Radios (UHF/HF/VHF)

A12.10.2. (552ACW) Air Refueling

A12.10.2.1. (552ACW) WD assist

A12.10.2.2. (552ACW) WD directed

A12.10.3. (552ACW) Monitor parameters (ATC/Non-ATC/Expanded)

**A12.11. (552ACW) Contracts between the Flight Crew and Mission Crew**

A12.11.1. (552ACW)

A12.11.2. (552ACW) Surveillance

A12.11.3. (552ACW) Weapons

A12.11.4. (552ACW)

A12.11.5. (552ACW) CSO/CT

A12.11.6. (552ACW) BDT

**A12.12. (552ACW) Contingencies**

A12.12.1. (552ACW) Latest takeoff time

A12.12.1.1. (552ACW) All planned activity

A12.12.1.2. (552ACW) Meaningful training (Max slip for E-3 AAR & 50% of fighter activity)

A12.12.2. (552ACW) Bingo fuel / time / considerations

A12.12.2.1. (552ACW) Ops stop / missed air refueling base

A12.12.3. (552ACW) Air Refueling contingencies

A12.12.3.1. (552ACW) Tanker delay

A12.12.3.2. (552ACW) Tanker canceled prior to takeoff

A12.12.3.3. (552ACW) Tanker canceled after takeoff

A12.12.3.4. (552ACW) No off-load

A12.12.4. (552ACW) Loss of activity / alternate missions

**A12.13. (552ACW) Destination**

A12.13.1. (552ACW) Conditions

A12.13.1.1. (552ACW) Force Protection Condition (FPCON)

A12.13.1.2. (552ACW) Alert Condition (LERTCON)

A12.13.1.3. (552ACW) Mission Oriented Preparedness Posture (MOPP)

A12.13.2. (552ACW) Billeting

A12.13.3. (552ACW) Transportation

A12.13.4. (552ACW) Aircraft access and tour restrictions

A12.13.5. (552ACW) Customs

**A12.14. (552ACW) Requirements**

A12.14.1. (552ACW) Seasonal clothing

A12.14.1.1. (552ACW) LPU's and Anti-exposure suits

A12.14.2. (552ACW) Regulations and publications

A12.14.3. (552ACW) Baggage restrictions

A12.14.4. (552ACW) Currency requirements/discrepancies (Go/No Go)

**A12.15. (552ACW) Timing update**

A12.15.1. (552ACW) Leadership meeting

A12.15.2. (552ACW) DO brief

A12.15.3. (552ACW) Crew release time

**A12.16. (552ACW) Taskings for Execution Briefing**

**A12.17. (552ACW) Showtime for the next day**

**A12.18. (552ACW) Bus/Taxi Flow**

**A12.19. (552ACW) Emergency of the Day  
Engineer**

*Flight*

**A12.20. (552ACW) Malfunction of the Day  
CT/CDMT/ART**

**A12.21. (552ACW) Flight Deck released**

**A12.22. (552ACW) Computer System Requirements  
Commander**

*Mission Crew*

A12.22.1. (552ACW) Initialization / DIODT timing

A12.22.2. (552ACW) Map selection ()

A12.22.2.1. (552ACW) Grid requirements ()

A12.22.2.2. (552ACW) CCCS origin change ()

A12.22.3. (552ACW) data base selection ()

**A12.23. (552ACW) Console requirements and seating plan**

A12.23.1. (552ACW) MCC

A12.23.2. (552ACW) Weapons

A12.23.3. (552ACW) Surveillance

A12.23.4. (552ACW)

A12.23.5. (552ACW) Battle Staff

**A12.24. (552ACW) Link operations (ASO/SST)**

A12.24.1. (552ACW) OPTASK Link ()

A12.24.2. (552ACW) Data Link players (callsign / location) (/SD)

A12.24.2.1. (552ACW) Other E-3s

A12.24.2.2. (552ACW) Rivet Joint/JSTARS

A12.24.2.3. (552ACW) Ground Agencies

A12.24.2.4. (552ACW) Fighters/Bombers

**A12.25. (552ACW) Link-16 (ASO/SST)**

A12.25.1. (552ACW) Crypto

A12.25.2. (552ACW) NTR

A12.25.3. (552ACW) Table

A12.25.4. (552ACW) Form 15

**A12.26. (552ACW) Link-11 (ASO/SST)**

A12.26.1. (552ACW) UHF / HF

A12.26.2. (552ACW)

**A12.27. (552ACW) Voice Tell ()**

A12.27.1. (552ACW) Timing

A12.27.2. (552ACW) Agency

**A12.28. (552ACW) Communication Plan**

A12.28.1. (552ACW) Take off radio configuration

A12.28.2. (552ACW) Air refueling radio configuration (confirm tanker type)

A12.28.3. (552ACW) COMSEC requirements

A12.28.4. (552ACW) Mission radios

A12.28.4.1. (552ACW) Radio requirements—Weapons / Surveillance / ECO / BDT

A12.28.4.2. (552ACW) Radio release priorities

A12.28.4.3. (552ACW) Have Quick operations

A12.28.4.3.1. (552ACW) Mickey procedures

A12.28.4.4. (552ACW) SATCOM requirements

A12.28.4.5. (552ACW) High power radios

A12.28.5. (552ACW) Frequency / radio changes

A12.28.6. (552ACW) Electronic protect

A12.28.7. (552ACW) Authentication and code words

A12.28.8. (552ACW) Review comm plan and specific communications requirements

A12.28.9. (552ACW) Other considerations

A12.28.9.1. (552ACW) Establish net procedures

**A12.29. (552ACW) Other mission requirements**

A12.29.1. **(552ACW)** AWACS Monitor duties & parameters

A12.29.2. **(552ACW)** SSU

A12.29.3. **(552ACW)** System M compromise (restrictions)

A12.29.4. **(552ACW)** Lesson Learned

A12.29.5. **(552ACW)** Emergency Procedures/duties

#### **A12. 30. (552ACW) Post mission documentation**

A12.30.1. **((552ACW)) Lessons Learned**

A12.30.2. **((552ACW)) Mission summary**

A12.30.3. **((552ACW)) Other logs and reports**

#### **A12.31. (552ACW) Techs Released**

**A12.32. ((552ACW))** **Sensor** **configuration**  
**ASO**

A12.32.1. **((552ACW)) Radar settings**

A12.32.1.1. **((552ACW)) Weapons area**

A12.32.1.2. **((552ACW)) Surveillance area**

A12.32.2. **((552ACW)) LVD (Min Velocity Setting**

A12.32.3. **(552ACW) EA/EP**

A12.32.4. **(552ACW) Anticipated degraded radar coverage**

A12.32.5. **((552ACW)) IFF settings**

A12.32.5.1. **((552ACW)) Weapons area**

A12. 32.5.2.

**A12.33. (552ACW) PDS** **Sensor** **configuration**  
**ECO**

A12.33.1. **(552ACW) Sectors**

A12. 33.2. **((552ACW)) Frequency / sector priorities**

A12. 33.3. **((552ACW)) Database modifications**

**A12.34. (552ACW) Required** **Letters** **of** **Agreements**  
**SD**

A12.34.1. **(552ACW) TM / MRU / ARU status**

A12.34.2. **(552ACW) Control requirements (radar, or both)**

A12.34.2.1. **(552ACW) ORM analysis**

**A12.35. (552ACW) Correlation** **Check**  
**ASO/SD**

A12.35.1. **(552ACW) Weapons mission**

A12.35.2. **(552ACW) Surveillance mission**

#### **A12.36. (552ACW) Area of Responsibility**

**A12.37. (552ACW) Tracking Responsibilities**  
**ASO**

**A12.38. (552ACW) ES Tasking**  
**ECO**

A12.38.1. (552ACW) Priorities

**A12.39. (552ACW) ES Producers**

**A12.40. (552ACW) Combat ID**  
**ASO/ECO/SD**

A12.40.1. (552ACW) Lack of Friendly (LOF)

A12.40.1.1. (552ACW)

A12.40.1.2. (552ACW) PPLI

A12.40.1.3. (552ACW)

A12.40.2. (552ACW) Presence of Enemy

A12.40.2.1. (552ACW) Off board

A12.40.2.2. (552ACW) System M

A12.40.2.3. (552ACW) ESM

A12.40.2.4. (552ACW) Point of Origin (POO)

A12.40.2.5. (552ACW) Hostile Act (HA)

**A12.41. (552ACW) ROE Trip**  
**ASO/ SD**

A12.41.1. (552ACW) Enemy Airborne

A12.41.2. (552ACW) Line Crosser

A12.41.3. (552ACW) Self Defense

A12.41.4. (552ACW) Hostile Intent (HI)

**A12.42. (552ACW) BVR Criteria**  
**SD**

**A12.43. (552ACW) ID Authority**  
**MCC**

**A12.44. (552ACW) Symbology (ID) Matrix**  
**ASO**

**A12.45. (552ACW) Change ID Procedures**  
**ASO/SD**

**A12.46. (552ACW) Kill passing / Kill removal / Regeneration**  
**SD/ASO**



**A12.47. (552ACW) Strike**  
***SD***

A12.47.1. (552ACW) TST

A12.47.2. (552ACW)

A12.47.3. (552ACW) Positive Identification (PID)

A12.47.4. (552ACW) Collateral Damage Estimate ()

**A12.48. (552ACW) Other Weapons Tasking**  
***SD***

A12.48.1. (552ACW) Check-in

A12.48.2. (552ACW) Tanker

A12.48.3. (552ACW) HVAA

A12.48.4. (552ACW) SAR/

**A12.49. (552ACW) Back-up Control Agencies**  
***SD*****A12.50. (552ACW) Battle Director Technician**  
***BDT***

A12.50.1. (552ACW) OPCON / TACON Status

A12.50.2. (552ACW) Battle Staff connectivity

A12.50.3. (552ACW) Special number

A12.50.4. (552ACW) Type of training / timing / real world considerations

A12.50.5. (552ACW) Special Instructions (SPINS) / OPSEC

A12.50.6. (552ACW) Special mission requirements

**A12.51. (552ACW) Contracts**

A12.51.1. (552ACW)

A12.51.2. (552ACW)

A12.51.3. (552ACW) SD

A12.51.4. (552ACW) BDT

A12.51.5. (552ACW)

**A12.52. (552ACW) Other**

A12.52.1. (552ACW) Passenger brief

A12.52.2. (552ACW) Clean-up duties

**Attachment 13 (Added-552ACW)****EXECUTION BRIEFING GUIDE****(AC/MCC Conduct) (BRIEF ONLY APPLICABLE ITEMS)**

**A13.1. (552ACW) Purpose.** Enable crews to step to the jet with all-critical safety items and key element of the mission fresh in their mind. Items briefed should build on the plan developed during mission planning.

**A13.2. (552ACW) Sign-in**  
**Commander**

*Aircraft*

A13.2.1. (552ACW) Time Hack

A13.2.2. (552ACW) Roll Call

A13.2.3. (552ACW) Total on board

A13.2.4. (552ACW) Meal payment

**A13.3. (552ACW) Security**

A13.3.1. (552ACW) Briefing area security

A13.3.2. (552ACW) Briefing classification

**A13.4. (552ACW) Intelligence Update**

**A13.5. (552ACW) Duress Words – Real World and Exercise**

**A13.6. (552ACW) Weather**

**A13.7. (552ACW) Aircraft**

A13.7.1. (552ACW) Primary

A13.7.1.1. (552ACW) MX status

A13.7.1.2. (552ACW) Parking spot

A13.7.1.3. (552ACW) Cocked status

A13.7.1.4. (552ACW) Fuel load

A13.7.2. (552ACW) Spare

A13.7.2.1. (552ACW) MX status

A13.7.2.2. (552ACW) Parking spot

A13.7.2.3. (552ACW) Cocked status

A13.7.2.4. (552ACW) Fuel load

**A13.8. (552ACW) Flight**

**Profile**

**Navigator**

A13.8.1. (552ACW) Route timing

A13.8.2. (552ACW) Air Refueling (AR track, ARCT, time on tanker)

A13.8.3. (552ACW) Alternates

A13.8.4. (552ACW) High terrain

**A13.9. (552ACW) E-3 IFF/SIF plan–Mode 1, 2, 3, & 4 rollover**  
**Commander**

*Aircraft*

**A13.10. (552ACW) Egress Routes**

**A13.11. (552ACW) Emergency Signals**

**A13.12. (552ACW) Mid-Air Collision Avoidance**

**A13.13. (552ACW) Fundamental Elements of Airmanship**

**A13.14. (552ACW) Flightline Safety – Glasses, Smoking, Ear Protection, Rings, Scarves**

**A13.15. (552ACW) 552 ACW Commander's Flight Safety Guidelines**

**A13.16. (552ACW) Simulated emergency/crew coord'n drill procedures**  
**Commander**

*Mission Crew*

A13.16.1. (552ACW) Type

A13.16.2. (552ACW) Timing

A13.16.3. (552ACW) Objectives

A13.16.4. (552ACW) Special considerations / requirements

A13.16.5. (552ACW) Communication (internal, external)

A13.16.6. (552ACW) Use of smoke masks

**A13.17. (552ACW) Mission crew emergency duties**

A13.17.1. (552ACW) Identify firefighters IAW T.O.

A13.17.2. (552ACW) Emergency exit duties

A13.17.3. (552ACW) Bottle refill team duties

A13.17.3.1. (552ACW) Location of refill team (AFT and forward)

A13.17.4. (552ACW) Runner duties

A13.17.4.1. (552ACW) Identify primary and secondary runner

A13.17.5. (552ACW) Emergency roll call

**A13.18. (552ACW) Theater Commander's Intention/Guidance**  
**Commander**

*Mission Crew*

**A13.19. (552ACW) Mission Crew Objectives**

A13.19.1. (552ACW) Tasking

A13.19.1.1. (552ACW) OPCON / TACON

A13.19.1.2. (552ACW) Agency / OPLAN

A13.19.2. (552ACW) Orbit location

A13.19.3. (552ACW) Area of responsibility

**A13.20. (552ACW) Sequence of Events–Mission Timing (Big Picture)**

A13.20.1. (552ACW) Ops Normal

A13.20.1.1. (552ACW) Requirements for Ops Normal

A13.20.2. (552ACW) On Station

A13.20.2.1. (552ACW) Requirements in addition to Ops Normal

A13.20.3. (552ACW) Off Station

A13.20.4. (552ACW) Air Refueling

A13.20.4.1. (552ACW) Requirements

A13.20.5. (552ACW) QC

A13.20.6. (552ACW) EP

A13.20.7. (552ACW) Power Down timing

**A13.21. (552ACW) Techs, ASTs and FE released**

**A13.22. (552ACW) Changeover Procedures**

**A13.23. (552ACW) Threat Monitor (E-3 Self-Defense - IAW AFTTP3-1V15)**

**A13.24. (552ACW) E-3 Survivability Briefing / Threat Response**

**A13.25. (552ACW) AWACS Monitor**

**A13.26. (552ACW) Rules of Engagement**

**A13.27. (552ACW) Other E-3s**

**A13.28. (552ACW) Air Surveillance Officer**

A13.28.1. (552ACW) Area of Responsibility

A13.28.2. (552ACW) Voice Tell timing

A13.28.2.1. (552ACW) Agency callsign / location

A13.28.3. (552ACW) Track ID plan

A13.28.4. (552ACW) Symbology plan

A13.28.5. (552ACW) Map selection

A13.28.5.1. (552ACW) Grid changes

A13.28.5.2. (552ACW) CCCS origin changes

A13.28.6. (552ACW) EA/EP

A13.28.7. (552ACW) Data-link operations (LINK-16 / TDL-A)

A13.28.7.1. (552ACW) Scheduled participants (callsign / location)

A13.28.7.2. (552ACW) Tracking responsibility

**A13.29. (552ACW) Electronic Combat Officer**

A13.29.1. (552ACW) Specific ES Tasking

A13.29.2. (552ACW) ES producers (callsign, platform, type, location, capabilities and limitations)

A13.29.3. (552ACW) Coordination / reporting

A13.29.3.1. (552ACW) Internal / external

A13.29.4. (552ACW) Data links

A13.29.5. (552ACW) Data base modification

**A13.30. (552ACW) Senior Director**

A13.30.1. (552ACW) Activity

A13.30.1.1. (552ACW) Callsigns

A13.30.1.2. (552ACW) Timing

A13.30.1.3. (552ACW) Scheduled airspaces

A13.30.1.4. (552ACW) Fight orientation

A13.30.2. (552ACW) TM / MRU / ARU status

A13.30.2.1. (552ACW) Agency callsign

A13.30.2.2. (552ACW) Control requirements (radar / IFF)

A13.30.3. (552ACW) MSLite

A13.30.4. (552ACW) ID / ROE

A13.30.5. (552ACW) Marshall points / line

A13.30.6. (552ACW) ID plan

A13.30.7. (552ACW) Re-generation points

A13.30.8. (552ACW) Fighter faxes

**A13.31. (552ACW) Battle Director Technician**

A13.31.1. (552ACW) OPCON / TACON Status / changes

A13.31.2. (552ACW) Agency callsign / location / reporting requirements

A13.31.3. (552ACW) Special number

**A13.32. (552ACW) Contingencies  
Commander**

*Aircraft Commander and Mission Crew*

A13.32.1. (552ACW) Latest takeoff time

A13.32.2. (552ACW) All planned activity

A13.32.3. (552ACW) Meaningful training (max slip for first activity & 50 percent of all scheduled activity)

- A13.32.4. **(552ACW)** Bingo fuel / time considerations
- A13.32.5. **(552ACW)** Ops stop / missed air refueling base
- A13.32.6. **(552ACW)** Air Refueling contingencies
  - A13.32.6.1. **(552ACW)** Tanker delay
  - A13.32.6.2. **(552ACW)** Tanker canceled prior to takeoff
  - A13.32.6.3. **(552ACW)** Tanker canceled after takeoff
  - A13.32.6.4. **(552ACW)** No off-load
- A13.32.7. **(552ACW)** Loss of activity / alternate missions
- A13.32.8. **(552ACW)** Post-mission debriefing - times & locations
  - A13.32.8.1. **(552ACW)** Maintenance
  - A13.32.8.2. **(552ACW)** Intelligence (Red Air tracking)
  - A13.32.8.3. **(552ACW)** Crew
    - A13.32.8.3.1. **(552ACW)** Mission review
    - A13.32.8.3.2. **(552ACW)** Debrief Objectives
    - A13.32.8.3.3. **(552ACW)** Emergency procedures
  - A13.32.8.4. **(552ACW)** Specialized
- A13.32.9. **(552ACW)** Seating Plan
- A13.32.10. **(552ACW)** Closing remarks
- A13.32.11. **(552ACW)** Bus Time

**Notes:**

1. Crews will review all information applicable to their intended route of flight/mission in the “Aircrew Information” section of the Tinker weather webpage and print out all applicable hazard charts.

**Attachment 14 (Added-552ACW)****P-SORTIE BRIEFING GUIDE(AC CONDUCTS)(OMIT FOR SAME DAY MISSION PLANNING)**

**A14.1. (552ACW) Purpose.** Emphasis is on summarizing the planned activities and updates since mission planning. Take advantage of opportunity to do “hangar flying” and training.

**NOTE:**

(\*\*) Asterisk items will also be reviewed the day of the flight.

Emphasize safety, CRM, and ORM. Address “Crunch Points.”

**A14.2. (552ACW) Sign-in**

A14.2.1. (552ACW) Time Hack

A14.2.2. (552ACW) Roll Call

A14.2.3. (552ACW) Flight Orders/Passenger Manifest

A14.2.4. (552ACW) Recall Roster

A14.2.5. (552ACW) FCIF/Read File

A14.2.6. (552ACW) Pubs Folder Checked/Signed Off

A14.2.7. (552ACW) Meal Request/Water Jug

A14.2.8. (552ACW) Flightline safety - eyeglasses, ear protection, rings, and scarves

**A14.3. (552ACW) Requirements**

A14.3.1. (552ACW) Seasonal clothing

A14.3.2. (552ACW) Regulations and publications

A14.3.3. (552ACW) Currency requirements (Go/No-Go)/discrepancies

**A14.4. (552ACW) Flight Specifics**

A14.4.1. (552ACW) Mission Number

A14.4.2. (552ACW) Callsign

A14.4.3. (552ACW) Aircraft Commander

A14.4.4. (552ACW) Aircraft Tail Number/Parking Spot/Status

**A14.5. (552ACW) Timing**

A14.5.1. (552ACW) Crew Rest

A14.5.2. (552ACW) Show Time

A14.5.3. (552ACW) Takeoff

A14.5.4. (552ACW) ARCT

A14.5.5. (552ACW) Land

**A14.6. (552ACW) Weather**

- A14.6.1. (552ACW) Takeoff
- A14.6.2. (552ACW) Enroute
- A14.6.3. (552ACW) Air Refueling
- A14.6.4. (552ACW) Transition Base
- A14.6.5. (552ACW) Arrival
- A14.6.6. (552ACW) Alternate

**A14.7. (552ACW) Objectives**

**A14.8. (552ACW) Ground Operations**

- A14.8.1. (552ACW) NOTAMS , Airfield Status (NAVAIDS, Construction/Bird Hazards)
- A14.8.2. (552ACW) GINS Alignment Procedures/DAFIF Database (current or non-current)

**A14.9. (552ACW) \*\* Takeoff**

- A14.9.1. (552ACW) Data cross-checked
- A14.9.2. (552ACW) Normal Procedures
- A14.9.3. (552ACW) Emergency Procedures

**A14.10. (552ACW) Departure**

- A14.10.1. (552ACW) SID/Radar Vectors
- A14.10.2. (552ACW) High Terrain/Obstacles

**A14.11. (552ACW) Flight Profile**

- A14.11.1. (552ACW) Route
- A14.11.2. (552ACW) High Terrain/Obstacle
- A14.11.3. (552ACW) Emergency Airfields

**A14.12. (552ACW) Fuel Considerations – Bingo(s), Air Refueling, Conservation Plan**

**A14.13. (552ACW) Air Refueling Procedures** (Navigator briefs all items except #7 & #8)

- A14.13.1. (552ACW) AR Track/ARCT/Altitudes
- A14.13.2. (552ACW) EMCON Procedures
- A14.13.3. (552ACW) Type Rendezvous
- A14.13.4. (552ACW) Alternate Methods
- A14.13.5. (552ACW) Considerations
- A14.13.6. (552ACW) Post Air Refueling Procedures
- A14.13.7. (552ACW) Emergency/Breakaway Procedures (AC)
- A14.13.8. (552ACW) Additional Considerations (Night, Cell, KC-10) (AC)

**A14.14. (552ACW) \*\* Recovery/Transition Procedures**



- A14.14.1. (552ACW) Destination Restrictions/ASRR
- A14.14.2. (552ACW) Arrival Procedures/STAR Review
- A14.14.3. (552ACW) Obstacles, High Terrain
- A14.14.4. (552ACW) Approach/Airfield Diagram Review
- A14.14.5. (552ACW) Touch- and-Go Procedures
- A14.14.6. (552ACW) Seat Assignments (Training Flow)

**A14.15. (552ACW) Contingencies**

- A14.15.1. (552ACW) Latest Departure
- A14.15.2. (552ACW) Bingo Fuel/Time/Considerations
  - A14.15.2.1. (552ACW) Ops Stop/Missed Air Refueling Base
- A14.15.3. (552ACW) Air Refueling Contingencies
  - A14.15.3.1. (552ACW) Tanker Delay
  - A14.15.3.2. (552ACW) Tanker Canceled Prior To Takeoff
  - A14.15.3.3. (552ACW) Tanker Canceled After Takeoff
  - A14.15.3.4. (552ACW) No Off-load
- A14.15.4. (552ACW) Alternate Mission Possibilities

**A14.16. (552ACW) AFI 11-2E3V3 Briefing Topic (see Attachment 20)**

**A14.17. (552ACW) Emergency of the Day**

**A14.18. (552ACW) Special Interest Items & OGV Trends**

**A14.19. (552ACW) IP Briefing Topic (“Hangar flying,” systems, etc. )**

**NOTE:** On the day of the flight, brief applicable items from the Execution Briefing Guide, including:

1. Instructor/SEFE Emergency Duties
2. Fire Fighter Responsibilities

**Attachment 15 (Added-552ACW)****MISSION REPORTS**

**A15.1. (552ACW) Purpose.** Immediately after landing and prior to takeoff from a field without a deployed AWACS staff, the AC will pass the following reports to the Tinker AFB Command Post at any of the following numbers:

Defense Switch Network (DSN) - 884-7313 or 7319

Commercial - (405) 734-7313 or 7319

Toll Free - 1-800-555-7910

NORAD Tactical DSN System - 776-2610 or 759-2627

Secure Voice STU-III compatible:

DSN 884-7697

Commercial (405) 734-7697

**A15.2. (552ACW) Remain Over Night Report:**

A15.2.1. (552ACW) Location

A15.2.2. (552ACW) Takeoff time

A15.2.3. (552ACW) Landing time

A15.2.4. (552ACW) Total flying time

A15.2.5. (552ACW) Aircraft Landing Status and System Capability Code

A15.2.6. (552ACW) Estimated time of departure

A15.2.7. (552ACW) Location/phone numbers of AC and MCC (call with the information when known)

**A15.3. (552ACW) Arrival Report (for Ops Stops, etc. ):**

A15.3.1. (552ACW) Landing time

A15.3.2. (552ACW) Total flying time

A15.3.3. (552ACW) Aircraft Landing Status and System Capability Codes

A15.3.4. (552ACW) Estimated time of departure

**A15.4. (552ACW) Before Takeoff Report:**

A15.4.1. (552ACW) Weather factors

A15.4.2. (552ACW) Aircrafts

A15.4.3. (552ACW) Estimated time of departure

A15.4.4. (552ACW) Destination/estimated time of arrival

A15.4.5. (552ACW) Alternate airfield (if required)

A15.4.6. (552ACW) Crew Duty Day expiration (Zulu)



**Attachment 16 (Added-552ACW)****POST-FLIGHT DEBRIEFING GUIDE****(AC/MCC Conducts) (BRIEF ONLY APPLICABLE ITEMS)**

**A16.1. (552ACW) Purpose.** Emphasis is on summarizing the events of the sortie against the stated objectives from mission planning. Special attention is made to stress flight safety, operational risk management, crew resource management, and any lessons learned.

**A16.2. (552ACW) Security**

A16.2.1. (552ACW) Briefing area security

A16.2.2. (552ACW) Briefing classification

**A16.3. (552ACW) Mission Overview**

**A16.4. (552ACW) Mission Review**

A16.4.1. (552ACW) Flight Deck (include Air Refueling, if planned/accomplished)

A16.4.1.1. (552ACW) Objectives

A16.4.1.2. (552ACW) Execution

A16.4.1.3. (552ACW) Effectiveness

A16.4.1.4. (552ACW) Equipment/Software

A16.4.1.5. (552ACW) Coordination

A16.4.1.6. (552ACW) Lessons Learned/Recommendations

A16.4.2. (552ACW) MCC (Review items A16.4.1.1 through A16.4.1.6 above, as necessary.)

A16.4.3. (552ACW) Weapons (Review items A16.4.1.1 through A16.4.1.6 above, as necessary.)

A16.4.4. (552ACW) Surveillance (Review items A16.4.1.1 through A16.4.1.6 above, as necessary.)

A16.4.5. (552ACW) Electronic Support (Review items A16.4.1.1 through A16.4.1.6 above, as necessary.)

A16.4.6. (552ACW) Battle Staff/ACE (Review items A16.4.1.1 through A16.4.1.6 above, as necessary.)

A16.4.7. (552ACW) Technicians (Review items A16.4.1.1 through A16.4.1.6 above, as necessary.)

**A16.5. (552ACW) Emergency Procedures**

**A16.6. (552ACW) Administrative Matters**

**A16.7. (552ACW) Commander/DETCO Comments**

**A16.8. (552ACW) Specialized Debriefings**



**Attachment 17 (Added-552ACW)****TINKER AFB DIVERSION CHART**

**A17.1. (552ACW) Purpose.** The following chart outlines routing, altitude, and fuel required to divert from Tinker AFB and arrive overhead at the selected bases with 18,000 lbs of fuel for:

A17.1.1. Standard day.

A17.1.2. No wind.

A17.1.3. Gross weight - 220.0 K lbs.

A17.1.4. Required Fuel = Penetration Fuel + Climb Fuel + Route Fuel.

A17.1.4.1. Penetration Fuel = 2000 lbs (no intermediate L/O).

A17.1.4.2. Climb Fuel = 3000 lbs. (NRT from missed approach at 300 ft AGL to divert altitude.)

A17.1.4.3. Route Fuel = Fuel from overhead TIK to overhead divert base at divert altitude.

A17.1.5. The Bingo Fuels in the chart can also be used as Bingo for operations in the Tinker Pattern.

**A17.2. (552ACW)** The chart is based on the descent being started at 80 NM from Tinker using the following descent speed schedule: M = .72 until IAS = 280 KIAS, then 280 KIAS until 10,000 ft. Below 10,000 ft speed is at or below 250 KIAS.

**A17.3. (552ACW)** This chart is a guide and should be used as such. Bingo fuel should be computed based on actual conditions using the appropriate charts in T.O. 1E-3A-1-1.

**TINKER AFB DIVERSION CHART**

<b>Airfields</b>	<b>Coordinates</b>	<b>True Course</b>	<b>Distance</b>	<b>TAS</b>	<b>ETE</b>	<b>Flt Level</b>	<b>BINGO Fuel</b>	<b>Fuel Required</b>	<b>Rwy Direction Length/Width</b>
<b>Will Rogers, OK</b>	35-23.6N 97-36.0W	262	11NM	230	:03	050	21.0	3.0	17/35 9800X150
<b>Altus AFB OK</b>	34-39.5N 99-16.0W	244	103NM	370	:16	180	27.1	9.1	17/35 13440X150
<b>McConnell AFB, KS</b>	37-37.4N 97-16.1W	002	132NM	370	:21	180	28.3	10.3	01/19 12000X300
<b>Ft Worth NAS, TX</b>	32-46.1N 97-6.5W	181	159NM	375	:25	230	29.9	11.9	17/35 12000X200
<b>Dyess AFB, TX</b>	32-25.2N 99-1.4W	215	218NM	380	:34	240	32.1	14.1	16/34 13500X300
<b>Barksdale AFB, LA</b>	32-30.1N 93-9.8W	132	255NM	385	:39	250	33.3	15.3	15/33 11756X300
<b>Little Rock AFB, AR</b>	34-55.0N 92-8.8W	095	259NM	385	:40	250	33.3	15.3	07/25 12000X200
<b>Whiteman AFB, MO</b>	38-43.8N 93-32.9W	042	271NM	385	:42	250	33.4	15.4	01/19 12400X200
<b>Offutt AFB, NE</b>	41-07.1N 95-54.7W	011	349NM	370	:56	250	36.3	18.3	12/30 11700X150
<b>Lackland AFB, TX</b>	29-22.8N 98-5.0W	190	367NM	380	:58	260	37.0	19.0	15/33 11550X300

**Attachment 18 (Added-552ACW)****E-3 INSTRUMENT PROCEDURES**

**A18.1. (552ACW) Instrument Procedures Standards.** To effectively and safely complete instrument approaches and landings, aircrews must use standard terminology to communicate precise meaning and intent. Concise callouts inform the entire crew of altitude, aircraft performance, and visual information as it becomes available. This attachment is not intended to replace procedures already established in AFMAN 11-217, Volumes 1 and 3, Instrument Flight Procedures. Instead it establishes instrument callout standards for all E-3 instrument approaches regardless of weather conditions. Crews should practice these callouts during transition training and simulator training.

**A18.2. (552ACW) Terms.** The following terms will be used.

A18.2.1. (552ACW) “CUES.” Visual indicators of the runway environment (see para A18.5.).

A18.2.2. (552ACW) PF. Pilot flying the approach.

A18.2.3. (552ACW) PNF. Pilot not flying the approach.

A18.2.4. (552ACW) NAV. Navigator backing up the pilot team.

A18.2.5. (552ACW) “SINK.” VVI

A18.2.6. (552ACW) HAT. Height above touchdown.

A18.2.7. (552ACW) “VISUAL.” Visual indicators of the runway threshold/touchdown zone (see A18.5.). Normally, this term applies to low visibility approaches (e.g. 2400 RVR). For non-precision approaches, visibility must be at approach minimums or greater (which is usually a mile or greater) prior to leaving the MDA.

A18.2.8. (552ACW) TDZE. Touchdown zone elevation.

**A18.3.** The callouts in the tables below are mandatory during instrument approaches, regardless of weather conditions (VMC or IMC).

<b>NON-PRECISION APPROACH STANDARD CALLOUTS</b>	
<b><i>Condition and/or Location</i></b>	<b><i>Callout</i></b>
Below 2,000 feet AGL (radio altimeter)	<b>PNF:</b> “Crew, below 2,000 feet” <b>PF:</b> “Roger” or “Checks”
FAF Inbound	<b>PF:</b> “Crew, descending to ____ (MDA), Cleared to Land” <b>NAV:</b> “Drift ____, Min Ground Speed ____, Timing ____ (if applicable)”
100 feet above MDA (barometric altimeter)	<b>PNF/NAV:</b> “100 above” <b>PF:</b> “Roger” or “Checks”
MDA (barometric altimeter)	<b>PNF:</b> “Minimums” → → → →

➔ *Sufficient CUES & VISUAL to continue approach AND in a position to land*

**CUES and VISUAL available at or prior to VDP, AND in position to land**

<i>CUES</i> at or prior to VDP ( <i>see A18.5.</i> )	<b>PNF:</b> “CUES, _____ (type of cues), Runway at _____ o’clock.”
VDP (DME or timing)	<b>PNF or NAV:</b> “VDP” <b>PF:</b> “Crew, VISUAL to Land (VISUAL for Touch & Go), (Going Around)”
100 feet HAT (radio altimeter)	<b>PNF:</b> “100 feet”
50 feet HAT (radio altimeter)	<b>PNF:</b> “50 feet”
20 feet HAT (radio altimeter)	<b>PNF:</b> “20 feet”

➔ *CUES or VISUAL not sufficient to continue approach OR not in a position to land*

**CUES or VISUAL not sufficient to land OR not in a position to land**

VDP (PF stays at MDA)	<b>PNF:</b> “VDP” <b>PF:</b> “Crew, Continuing to Missed Approach Point”
MAP	<b>PNF:</b> “Missed Approach Point, Go Around” <b>PF:</b> “Crew, Going Around”

**PRECISION APPROACH STANDARD CALLOUTS**

<i>Condition and/or Location</i>	<i>Callout</i>
Below 2,000 feet AGL (radio altimeter)	<b>PNF:</b> “Crew, below 2,000 feet” <b>PF:</b> “Roger” or “Checks”
Glide Slope Intercept	<b>PF:</b> “Crew, descending to ____ (DH), Cleared to Land” <b>NAV:</b> “Drift ____, Min Ground Speed ____”
100 feet above DH (barometric altimeter)	<b>PNF/NAV:</b> “100 above” <b>PF:</b> “Roger” or “Checks”
DH (barometric altimeter/PAR controller)	<b>PNF/NAV:</b> “Decision Height” <b>PF:</b> ” ➔ ➔ ➔ ➔

➔ *Sufficient CUES & VISUAL to continue approach AND in a position to land*

**CUES available at or prior to DH**

<i>CUES</i> available at or prior to DH	<b>PNF:</b> “CUES, _____ (type of cues), Runway
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(see A18.5.)	at ____ o'clock" <b>PF:</b> "Crew...Continuing (VISUAL to Land), (VISUAL for Touch & Go), (Going Around)"
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**VISUAL available by 100 feet (radio altimeter)**

VISUAL available at or prior 100' (see A18.5.)	<b>PF:</b> "Crew...VISUAL to Land (Visual for Touch & Go), (Going Around)"
100 feet HAT (radio altimeter)	<b>PNF:</b> "100 feet"
50 feet HAT (radio altimeter)	<b>PNF:</b> "50 feet"
20 feet HAT (radio altimeter)	<b>PNF:</b> "20 feet"

➔ **CUES or VISUAL not sufficient to continue approach OR not in a position to land**

**CUES not sufficient to continue approach OR not in a position to land**

DH (barometric altimeter/PAR controller) (NOTE: "CUES" not called or not in a position to land)	<b>PNF/NAV:</b> "Decision Height" <b>PF:</b> "Crew, Going Around"
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**VISUAL not sufficient to continue approach OR not in a position to land**

100' (radio altimeter)	<b>PNF:</b> "100 feet" <b>PF:</b> "Crew, Going Around"
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**A18.4. (552ACW) Performance Deviation Callout Standards.** The following performance callouts will be made by the PNF or NAV as indicated. The PF will acknowledge with "Roger" or "Checks." On PAR approaches, glide path and course deviation callouts are deleted. On ASR approaches, course deviation callouts are deleted.

**PERFORMANCE DEVIATION CALLOUTS**

Type of Deviation	Deviation	Callout (PNF or NAV)
Airspeed	<b>+10 / -5 K</b>	"10 (5) Knots Fast (Slow)"
Course	<b>+ / - One Dot</b>	"One Dot Left (Right) of Course"
Glide path (ILS only)	<b>+ / - One Dot</b>	"One Dot Above (Below) Glide Path"
Altitude (FAF or intermediate)	<b>+100 / -50 ft</b>	"100 (50) Feet Above (Below) Level"
Descent Rate (briefed)	<b>+ / - 300 fpm</b>	"SINK ____"
Min Ground Speed	<b>- 10 K</b>	"10 Knots Below Min Ground Speed"
Drift (original call by NAV)	<b>+ / - 3 Degrees</b>	"Drift ____ Degrees Left (Right)"

**A18.5. (552ACW) Visual Information.** The PF cannot go below DH or MDA unless "CUES" has been called. The PF cannot descend below 100 feet above TDZE (radio altimeter) unless he or she is "VISUAL." The indicators of "CUES" and "VISUAL" are as follows:

A18.5.1. **(552ACW) CUES.** The PNF must see at least **one** of the following to call “CUES.”

A18.5.1.1. **(552ACW)** Approach light system (Strobes, SSALR, etc.).

A18.5.1.2. **(552ACW)** Threshold markings or threshold lights.

A18.5.1.3. **(552ACW)** Runway end identifier lights (REIL).

A18.5.1.4. **(552ACW)** Visual descent path indicator lights (VASI, PAPI, PLASI, etc.).

A18.5.1.5. **(552ACW)** Touchdown zone or touchdown zone markings or touchdown zone lights.

A18.5.1.6. **(552ACW)** Runway or runway markings.

A18.5.1.7. **(552ACW)** Runway lights (Centerline, HIRL, MIRL, etc.).

A18.5.2. **(552ACW) VISUAL.** Using the approach lights as a reference the PF must see, as a minimum, one of the following indicators to be “VISUAL” during a low visibility approach:

A18.5.2.1. **(552ACW)** Red terminating bars are distinctly visible and identifiable.

A18.5.2.2. **(552ACW)** Red side row bars are distinctly visible and identifiable.

A18.5.2.3. **(552ACW)** Touchdown zone and sufficient horizontal attitude information.

**A18.6. (552ACW) GINS set-up for monitoring approaches.** Navigators will maximize the use of GINS for monitoring the approach being flown. Once the pilot has set the HSI Nav Mode Selector switch to a setting other than GINS, the navigator will set the GINS up for monitoring the approach by extending the runway centerline from the approach end of the runway in use. For circling approaches, the flight crew should coordinate on use of the GINS to provide better situational awareness information to the PF. For example, the navigator will set the GINS up for monitoring the approach by extending the runway centerline from the approach end of the runway that the instrument approach is being flown to, and then extend the runway centerline from the approach end of the intended landing/low approach runway once the PF has commenced the circling procedure. This information is particularly useful to the PF in marginal visibility and/or at strange fields.

**A18.7. (552ACW) Stabilized Approach Guidance.** Failure to recognize the need for a missed approach and to execute a missed approach is a major cause of approach and landing accidents. The following guidance provides a standardized method of determining when a go-around and missed approach is appropriate.

A18.7.1. **(552ACW)** An approach is considered stabilized when all of the following criteria are met:

A18.7.1.1. **(552ACW)** All briefings and checklists have been completed.

A18.7.1.2. **(552ACW)** The aircraft is on the correct flight path.

A18.7.1.3. **(552ACW)** Only small changes in heading/pitch (+/- 5 degrees heading, +/- 2 degrees pitch) are required to maintain the correct flight path.

A18.7.1.4. **(552ACW)** The aircraft speed is not more than target airspeed + 10 knots and not less than target airspeed -5 knots (momentary deviations excepted).

A18.7.1.5. **(552ACW)** The aircraft is in the correct landing configuration.

A18.7.1.6. **(552ACW)** Sink rate is no greater than 1,000 feet per minute. If an approach requires a sink rate greater than 1,000 feet per minute, the target sink rate as briefed in the approach briefing will be the maximum sink rate.

A18.7.1.7. **(552ACW)** Engine fuel flow is a minimum of 2,000 pounds per hour per engine.

A18.7.1.8. **(552ACW)** An ILS approach must be within one dot deviation on both glide slope and localizer. A non-precision approach must be within one dot lateral displacement.

A18.7.1.9. **(552ACW)** A circling approach or VFR pattern must be wings level on final no later than 300 feet AGL.

A18.7.2. **(552ACW)** If an approach becomes unstabilized in the following conditions, the crew will initiate a go-around and missed approach:

A18.7.2.1. **(552ACW)** Below 1,000 feet AGL if the weather is at or below 1000/3.

A18.7.2.2. **(552ACW)** Below 500 feet AGL if the weather is above 1000/3.

A18.7.2.2.1. **(552ACW)** Below 300 feet AGL in the VFR pattern or during a circling approach.

A18.7.3. **(552ACW)** It may not be possible to achieve stabilized approach criteria during certain types of approaches (emergency procedures, tactical arrivals, etc.). In these cases, time permitting, the AC will thoroughly brief go around considerations for the approach to be flown.

A18.7.4. **(552ACW)** In no case will pilots attempt to “save” or salvage a poor approach unless the possibility of a go around presents a greater risk than continuing to land.

## Attachment 19 (Added-552ACW)

### IN-FLIGHT EMERGENCY STANDARDS

#### A19.1. (552ACW) Purpose, Definitions, and Goals.

A19.1.1. **(552ACW) Purpose.** This attachment provides standards for ACs, supervisors, and supporting agencies, during an E-3 In-Flight Emergency (IFE) at Tinker and deployed locations.

#### A19.1.2. (552ACW) Definitions.

A19.1.2.1. **(552ACW) Group Commander or Designated Representative (GC/DR).** Refer to AFI 11-418, Operations Supervision, and AFI 11-418/552 ACW SUP 1.

A19.1.2.2. **(552ACW) Supervisor of Flying (SOF).** Refer to AFI 11-418/552 ACW SUP 1. “RAMROD” at Tinker.

A19.1.2.3. **(552ACW) CC/CD/DO or Operations Supervisor.** Squadron or deployed leadership. Refer to AFI 11-418/552 ACW SUP 1.

A19.1.2.4. **(552ACW) Technical Assistance (TA).** Personnel providing TA must be qualified in the aircraft (AC or IP and FE) and can include the following:

SOF

CC/CD/DO or “Duty AC” or “Duty IP” from squadron

513 ACG/DOV Flight Engineer or AC/IP: (availability limited)

552 OG/OGV Pilot (“Merlin 1”): on a cell phone

552 OG/OGV Flight Engineer (“Merlin 2”): on a cell phone

Flight Simulator Contractor IP or Instructor Flight Engineer

Boeing Seattle Representatives via a CONFERENCE HOTEL

A19.1.2.4.1. **(552ACW) CONFERENCE HOTEL.** A CONFERENCE HOTEL is convened for more complicated IFEs. Boeing technical advice can also be requested. Refer to AFI 11-418, and 552 ACWI 10-2, Conference Hotel Procedures (Tinker IFEs) for procedures.

A19.1.2.5. **(552ACW) Support Agencies.** Operations Center, ATC, Base Ops, Fire Department (“Chief 1” or “Chief 2”), weather, etc.

A19.1.2.6. **(552ACW) IFE Frequency.** For local operations, the Command Post primary UHF frequency (305.6) is the IFE frequency. The SOF, Command Post, GC/DR, and Fire Department will normally be on this frequency. At deployed locations refer to local OIs.

A19.1.3. **(552ACW) IFE Goals.** The goals of IFE standards is to recover the aircraft and crew expeditiously while reducing the risk to an acceptable level. This goal is accomplished by two objectives: (1) provide TA and supervisory oversight to the AC, and (2) minimize the ACs workload.

A19.1.3.1. **(552ACW)** AC Goal. A safe and expeditious recovery is primary. To minimize risk, ACs should use TA if time and conditions permit.

A19.1.3.2. **(552ACW)** Supervisor Goal. The goal of supervisors is to assist the AC, while minimizing the AC's workload. Therefore, except for the SOF, supervisor involvement should be as "transparent" as possible.

## **A19.2. (552ACW) IFE Standards.**

A19.2.1. **(552ACW)** Authority and Responsibilities.

A19.2.1.1. **(552ACW)** AC Authority. Refer to AFI 11-202V3, *General Flight Rules*.

A19.2.1.2. **(552ACW)** SOF. IAW AFI 11-418, the SOF is the supervisor responsible for real-time supervision of the IFE. The SOF normally acts for the GC/DR.

A19.2.1.3. **(552ACW)** GC/DR. The GC/DR has oversight responsibility for the IFE. The GC/DR must inform the AC and other agencies as soon as possible if relieving the SOF of SOF duties. If relieving the SOF, the GC/DR will use the applicable GC/DR callsign.

A19.2.2. **(552ACW)** IFE Execution Standards. Consider using the Emergency Actions Guide (EAG).

A19.2.2.1. **(552ACW)** Initial Actions.

A19.2.2.1.1. **(552ACW)** Notification Standard. Talk directly to the SOF. If unable to reach the SOF, talk to the CC/CD/DO or the GC/DR in that order. Otherwise, give the information to the duty controller at the operations center. Provide the (1) problem, (2) solution, (3) plan and (4) TOLD if practical. Ask for a CONFERENCE HOTEL if needed. Provide a "best guess" ETA and update the ETA if it changes.

A19.2.2.1.2. **(552ACW)** Declaring the Emergency. Declare the emergency with the SOF, Operations Center, and ATC. Declare the emergency ASAP to activate the crash net and notify TA.

A19.2.2.1.2.1. **(552ACW)** Tinker primary TA will normally be Merlin 1 and Merlin 2.

A19.2.2.2. **(552ACW)** Arrival in Terminal Area (Time and conditions permitting).

A19.2.2.2.1. **(552ACW)** TA, CC/CD/DO, and GC/DR. TA will normally meet in the operations center and monitor the IFE frequency. CC/CD/DO may be in the operations center or on the flight line. The GC/DR may be on the flight line monitoring the IFE frequency. Refer to A19.1.2.4.1 above for a CONFERENCE HOTEL. If the plan and TOLD have not already been validated, the SOF will notify the AC when TA is in place.

A19.2.2.2.2. **(552ACW)** Validation of Plan and TOLD. If not done previously, the AC will present the (1) problem, (2) solution, (3) plan, and (4) TOLD to the SOF over the IFE frequency. The SOF will coordinate with the TA and the GC/DR to validate the plan and the TOLD. The SOF will then confirm with the AC that "data checks good" and "the plan sounds good."

A19.2.2.2.2.1. **(552ACW)** Three-engine and Physiological Emergencies

Standard. In accordance with AFI 11-2E-3V3 (land as soon as practical) and the need to expedite recovery for a physiological emergency, use the following standard:

A19.2.2.2.1.1. **(552ACW)** AC does not need to validate TOLD (assuming no other degradation of aircraft performance). AC follows guidance in A19.2.3 below.

A19.2.2.2.1.2. **(552ACW)** The IFE Crew should pass the plan to the SOF, but not delay the approach.

A19.2.2.2.1.3. **(552ACW)** SOF will inform the GC/DR ASAP. SOF should not attempt to delay recovery except: (1) to prevent a possible mishap or (2) in case of unanticipated changes to performance (wet runway, winds, etc.).

A19.2.2.2.3. **(552ACW)** Updated ETA. The AC will provide an updated ETA. An accurate ETA is essential to timely response from support agencies.

A19.2.2.3. **(552ACW)** Preparation for Landing.

A19.2.2.3.1. **(552ACW)** Starting the approach. When the IFE Crew is ready to begin the approach the crew will notify the SOF they are starting the approach. The SOF or other supervisors should not attempt to delay the approach except to prevent a possible mishap.

A19.2.2.3.2. **(552ACW)** On Final. The IFE Crew should verify with tower the fire department is in place.

A19.2.2.4. **(552ACW)** After Landing. ACs should coordinate with the fire department (Chief 1 or 2) for termination of the emergency. Use the IFE frequency.

A19.2.2.4.1. **(552ACW)** Debriefing. To improve operations, the AC will debrief the SOF when able.

A19.2.3. **(552ACW)** IFE Communications Standards.

A19.2.3.1. **(552ACW)** Coordination Standard.

A19.2.3.1.1. **(552ACW)** Radio Standard. Once the IFE aircraft is in the terminal area, only the SOF and IFE Crew should transmit on the IFE frequency. Other supervisors or agencies should not transmit on the IFE frequency (except for initial radio check) unless the transmission is required to prevent a mishap. However, the SOF may direct another agency to communicate directly with the AC (refer to AFI 11-418). The SOF or other supervisors will not transmit on an ATC frequency unless cleared to do so by the controlling agency or to prevent a mishap.

A19.2.3.1.2. **(552ACW)** The SOF, other supervisors, TA, and other agencies should coordinate information using means other than the UHF radio (e.g. cell phone or "brick").

A19.2.3.2. **(552ACW)** Other aircrews. Aircrews should not use the IFE frequency when an IFE is in progress. Use the alternate operations center frequencies for non-emergency communications.

A19.2.3.3. **(552ACW)** Single Frequency Approach (SFA). A single frequency approach (354.125) is available at Tinker. However, since this frequency is controlled by non-USAF agencies, experience has shown that coordination is difficult and slows down the recovery. Therefore, use of the SFA at Tinker is not the standard.

A19.2.3.4. **(552ACW)** When dumping fuel in the CONUS, aircrews must inform ATC by using the phrase “dumping fuel.” Aircrews will notify ATC of their intention to “dump fuel,” when actual fuel-dumping operations begin, and when those operations end.

**Attachment 20 (Added-552ACW)****SCENARIO OF THE DAY**

**A20.1. (552ACW) Purpose.** ACs will use this guide during the Flight Deck Specialized Briefing to generate discussion on guidance provided by AFI 11-2E-3V3 and this supplement. 31 scenarios have been developed and are intended for use on their corresponding day of the month.

A20.1.1. **(552ACW) DAY 1:** You are deploying to Turkey through Mildenhall. On your way to Mildenhall, you perform an Ops Stop at Bangor. You arrive at Mildenhall at 0600Z. What is the earliest time you can take off for Turkey? Does the Ops Stop affect this at all? Who is the waiver authority and how would you coordinate the waiver? **REF para 3.3.5**

A20.1.2. **(552ACW) DAY 2:** After working four hours of an eight hour shift, you are told to go home for an RP-3 alert crew. You pick up the pager at 1200 local time. What is the earliest time that you will be considered available for alert status? **REF para 3.22.1.2**

A20.1.3. **(552ACW) DAY 3:** The weapons activity for the day has ended early and you are directed to fly out your full mission duration. The AC and CP brief to do an hour and half of low approaches back at Tinker. The Nav informs you that you have a passenger on board as an incentive flight. Can you do low approaches? What is the definition of transition? **REF para 3.18.2, 4.12.4.1, and terms.**

A20.1.4. **(552ACW) DAY 4:** You are at an air show at Tyndall AFB. The air show coordinator tells you during setup that she has only enough stands to give you one instead of the requested two. What is your response? **REF para 3.21**

A20.1.5. **(552ACW) DAY 5:** Departing on a week-long RON with SARM and Orderly Room personal on board, who is responsible for assisting the passengers? What responsibilities are required for transportation of passengers? What regulation covers briefing of passengers and where is it found. **REF paras 2.5.1.2 and 3.12.**

A20.1.6. **(552ACW) DAY 6:** An AC and CP are flying out of Turkey. The AC has 1600 total hours and 100 hours of E-3 primary time. The CP has 250 hours of E-3 primary time. The weather for takeoff is 300/1 and you have the CFACC (O-6) on board. Can the CP do the takeoff or landing? **REF paras 4.3.2 – 4.3.2.3.1**

A20.1.7. **(552ACW) DAY 7:** You are departing Tinker on a training sortie with a 135K fuel load. You have some extra time on the front end of the mission, so the IP wants to do some heavyweight simulated emergency return approaches. What do you need to consider prior to executing these? **REF paras 4.2.10**

A20.1.8. **(552ACW) DAY 8:** You are doing the Before Start Checklist at Keflavik and the FE figures out from the reported Mu Meter reading that the runway RCR equivalent is 7. What do you need to consider? How would you coordinate any changes? **REF para 4.2.7**

A20.1.9. **(552ACW) DAY 9:** Preparing to take off from Keflavik, the Mu Meter reading converts to the equivalent RCR of 14. What RCR do you use to figure the crosswind limit and what is the limit for Takeoff and the Emergency Return? **REF paras 4.2.5 and 4.2.7**



A20.1.10. **(552ACW) DAY 10:** You are tasked to fly from Tinker to Barksdale. You are supposed to land, let 5 people off who are attending a Senior NCO Academy graduation, and then do a P-Sortie, before landing to pick up your squadron members for the return flight to Tinker. What considerations should you take into account in planning for the subsequent takeoff? **REF para 4.2.9.4**

A20.1.11. **(552ACW) DAY 11:** Returning from Warner Robins your PAX manifest shows you have maintenance, security police and an intelligence officer on board. You arrive back early at Tinker. Can you do transition with an IP on board? **REF para 4.12.4.1**

A20.1.12. **(552ACW) DAY 12:** While on a three engine ILS to Runway 35 at Tinker, tower directs a go around for aircraft on the runway. Your copilot begins the three-engine go around procedure. The aircraft remains under control at all times through the clean up. Is this okay or should he/she use all four engines? **REF para 4.13.5.9**

A20.1.13. **(552ACW) DAY 13:** A crew is on the descent into Tinker, planning a simulated three engine to a touch and go for the first approach. Weather is above circling minimums. Can they proceed as planned? After the first approach, ATIS reports a PIREP at Tinker as 300 and 1. Can they continue doing touch and go's? What are the restrictions on transition? **REF paras 4.12 and 4.13**

A20.1.14. **(552ACW) DAY 14:** During transition training at Tinker, with the weather 1500 BKN and 2 mi. visibility and light rain, the pilot in the other seat asks if he can do a flaps 40 touch and go. Can he/she? How about flaps 25 to 50? **REF para 4.12.6**

A20.1.15. **(552ACW) DAY 15:** You are airborne when the weather radar becomes inoperative. The forecast is for thunderstorms all along your route of flight with 5 mi. visibility above FL200. What do you do? **REF para 4.1.3.3**

A20.1.16. **(552ACW) DAY 16:** Preparing to take off from Tinker, you hear tower announce a lightning watch. Can you take off? What about during a lightning warning? **REF para 4.1.3.3**

A20.1.17. **(552ACW) DAY 17:** Two ACs are flying together. They are 30 minutes early to AR, so one suggests getting a block altitude and doing approaches to a stall. They weigh less than 250,000 lbs, it's daytime, VMC, and they have no passengers on board. Can they do this? **REF para 4.15.5**

A20.1.18. **(552ACW) DAY 18:** An IP and CP fly back to Tinker for an hour of transition. The CP asks if he/she can do a landing attitude demo. Should the IP let him/her? **REF para 4.14**

A20.1.19. **(552ACW) DAY 19:** Shortly after takeoff for an LFE, the ART informs you that you are completely out of SF6. You have to return for a quick tail swap. Approach has you holding at 6000' MSL in the Fuel Dump area. What factors do you need to consider (besides the checklist) to fuel dump? **REF para 4.17 and 4.22**

A20.1.20. **(552ACW) DAY 20:** A CP is flying in the left seat with an IP in the right (no other pilots are on board), the #2 engine develops problems and the crew shuts it down for oil temp out of limits. May the IP let the CP land for the experience? **REF paras 4.13.2 (hint only simulated engine-out) and 4.24**

A20.1.21. (552ACW) **DAY 21:** After a P-sortie debriefing at 2300 local you check your C2MS and see you have a Proficiency Simulator at 0700 local the next day. Is this ok? **REF para 3.3.3**

A20.1.22. (552ACW) **DAY 22:** On a P-sortie in VFR conditions, you are on downwind for Tinker Runway 17 with 13,000 lbs of gas for the full stop. An E-3 on takeoff roll aborts at high speed and appears to have blown tires. Runway 12 is already closed for repairs. What do you do? What are your options? **REF paras 4.20.2 and 4.20.3**

A20.1.23. (552ACW) **DAY 23:** Returning from a 3 day TDY to Langley, you weigh 230,000 lbs, winds are 170/10, and weather is VFR. You have a normal crew plus three maintenance personnel on board. You (an IP) and your CP are planning to do some transition back at Tinker. The CP briefs a 4 engine TACAN to circle for a touch and go. Any problems with this? On the downwind portion of the VFR, the CP announces, "OK crew, this will be a simulated three engine touch and go." Any problems with this? **REF paras 4.12 and 4.13**

A20.1.24. (552ACW) **DAY 24:** You are returning to Nellis in the weather. Several fighters are ahead of you trying to get down before rain showers shut down the field. Traffic is compressed to the legal minimum spacing. You ask the MCC to keep the mission radar up to monitor traffic. At 50 miles, you determine you may have to go below FL180 with the mission radar radiating. (you have cooling air down to 10,000'). Are you legal to transmit below FL180? **REF para 3.8**

A20.1.25. (552ACW) **DAY 25:** You are on a training mission operating out of an FOL that has a minimum required climb gradient for departures of 350'/nm. There is also an SDP published for this location. Your FE tells you that OEI you can only meet a climb gradient of 320'/nm. Can you depart? What are your options? **REF para 4.8.3**

A20.1.26. (552ACW) **DAY 26:** An AC and CP are returning after a C-sortie for transition training. The AC and the copilot are both certified as "experienced". The weather is 1200/3. Can the AC allow the CP to do simulated 3-engine work? **REF para 4.13.5.7**

A20.1.27. (552ACW) **DAY 27:** An AC and CP are night air refueling. The CP is AAR qualified. The CP accomplishes several contacts before the tanker calls and tells them their autopilot will be off for the remainder of the AR. Can the CP continue to AR? **REF para 4.28.7**

A20.1.28. (552ACW) **DAY 28:** Your destination runway is 7,000' X 135' and the runway is wet. What is your max allowable computed landing distance? **REF para 4.2.6 and 4.2.9.1**

A20.1.29. (552ACW) **DAY 29:** After getting the gas, an AC begins his descent to the bottom of the block, then starts a turn away from the tanker. Is this OK? Why or why not? When should the pilot begin a 500 to 1000 feet per minute descent rate? **REF paras 4.29.2 and 4.29.3**

A20.1.30. (552ACW) **DAY 30:** An AC and CP are holding short, number one for Runway 17 on a VMC day with a dry runway. ATIS called the winds 240 at 10G15. The CP is performing the takeoff. Tower clears them for takeoff and calls winds 240 at 15, variable from 240 to 280 at 10G20. Any problems here? **REF paras 4.2.4 and 4.2.5.2**

A20.1.31. (552ACW) **DAY 31**: You are returning from a two-week RED FLAG deployment. On descent, you notice seat five is occupied by a maintainer with no head set. Is this OK? What techniques and procedures should a crew consider prior to takeoff or prior to doing pattern work to help avoid a mid-air? REF [para 4.17](#)

**Attachment 21 (Added-552ACW)**  
**HANGAR LAUNCH PROCEDURES**

**A21.1. (552ACW) Prepare for Tow**

- A21.1.1. (552ACW) Plugs and Covers - Removed (E, GC)
- A21.1.2. (552ACW) Battery Switch - On (E)
- A21.1.3. (552ACW) Emergency Power Switch - On (E)
- A21.1.4. (552ACW) Interphone - Checked (P, E, GC)
- A21.1.5. (552ACW) Interconnect Valve Switch - System (E)
- A21.1.6. (552ACW) Hydraulic System - As Required (E, GC)
- A21.1.7. (552ACW) Flaps - UP (P, GC)
- A21.1.8. (552ACW) Parking Brake - SET (P, GC)
- A21.1.9. (552ACW) Brake Pressure - Normal Range (CP)
  - A21.1.9.1. (552ACW) When electrical power is removed, brake pressure will read 0.
- A21.1.10. (552ACW) Seat Belt Switch - ON (CP or E)
- A21.1.11. (552ACW) Doors, Slides, Emergency Lights - Closed and Armed (CSO, ART, E)
- A21.1.12. (552ACW) GINS - Ready for Towing (E, N)
- A21.1.13. (552ACW) IFF Master Switch - ON.
- A21.1.14. (552ACW) Landing Gear - Configured for Tow (E, GC)
  - A21.1.14.1. (552ACW) Nose Gear Scissors - Disconnected
  - A21.1.14.2. (552ACW) Tow Bar - Connected
  - A21.1.14.3. (552ACW) All gear pins, T-handle - Installed
- A21.1.15. (552ACW) Warning Alarm and Lights - Checked (P or CP, E, ART, CDMT, CSO)
- A21.1.16. (552ACW) Mission Crew - Ready for Tow (E, MCC)
- A21.1.17. (552ACW) Security and Tow Clearance - Received (Raymond 24, Tinker Ground, GC)
- A21.1.18. (552ACW) Aux Hydraulic Pumps - OFF (E)
- A21.1.19. (552ACW) Fuel Pumps - OFF (E)
  - A21.1.19.1. (552ACW) Steps 17 and 18 reduce electrical load on initial APU power transfer.
- A21.1.20. (552ACW) Parking Brake - As Required (P, GC)
- A21.1.21. (552ACW) External Power Switch - OFF (E, GC)

A21.1.22. **(552ACW)** Chocks and Ground Equipment - Removed (P, GC)

A21.1.23. **(552ACW)** Hangar Upper Tail Doors – Open (P, GC)

A21.1.24. **(552ACW)** Parking Brake – Released (P, GC)

**A21.2. (552ACW) During Tow**

A21.2.1. **(552ACW)** APU - Start as Required (E, GC)

A21.2.2. **(552ACW)** Ground Crew advises FE when APU doors clear hangar to start APU.

A21.2.3. **(552ACW)** Air Conditioning Flow Control Valves - Checked if required (E)

A21.2.4. **(552ACW)** Aux Hydraulic Pumps - ON (E, GC)

A21.2.5. **(552ACW)** Fuel Pumps - ON (E)

A21.2.6. **(552ACW)** Emergency Power Switch - Normal (E)

**A21.3. (552ACW) When Tow Complete**

A21.3.1. **(552ACW)** Parking Brake - Set (GC, P)

A21.3.2. **(552ACW)** Flaps - 14 (CP, GC)

A21.3.3. **(552ACW)** IFF - Stby (CP or E)

A21.3.4. **(552ACW)** CVR/DFDR/CPL - Checked if required (E)

A21.3.5. **(552ACW)** Landing Gear - Configured for Flight (E, GC)

A21.3.5.1. **(552ACW)** Tow Bar - Disconnected

A21.3.5.2. **(552ACW)** Nose Gear Scissors - Connected

A21.3.5.3. **(552ACW)** Gear Pins, T-handle - Removed and Stowed

A21.3.6. **(552ACW)** Aircraft Forms - Complete (E, GC)

**A21.4. (552ACW) Proceed to STARTING ENGINES Checklist**

**Attachment 22 (Added-552ACW)****AIRCRAFT COCKING PROCEDURES****A22.1. (552ACW) Aircraft Cocking Procedures.**

A22.1.1. **(552ACW) Restrictions.** Aircrew participating in cocking duties must be qualified and current in the duty position they will be preparing for flight. If a crewmember is DNIF, they must have specific authorization on the AF Form 1042 to perform aircraft preflight duties. Cocking crews will be afforded the same crew rest as flight crews and will be limited to a 16 hour duty day.

A22.1.2. **(552ACW) General Aircraft Cocking Procedures.** Aircraft will be cocked IAW appropriate technical orders. In addition, cocking crews will accomplish the following steps:

A22.1.2.1. **(552ACW)** Check all oxygen regulators and crew seats for proper operation.

A22.1.2.2. **(552ACW)** Ensure cargo net or adequate cargo straps are on the aircraft.

A22.1.2.3. **(552ACW)** Zeroize all crypto codes if aircraft will be left unattended.

A22.1.2.4. **(552ACW)** Technicians will record system configuration information on respective positional logs.

A22.1.3. **(552ACW) Cocking Crew Composition.** The cocking crew will consist of personnel listed in T.O. 1E-3A-1 for Level CC1.

A22.1.4. **(552ACW) Cocking Level.** Unless otherwise directed, aircraft will be cocked to Level CC1.

A22.1.5. **(552ACW) GINS Preflight.** The navigator will perform a GINS preflight. When cocking in a hangar, GPS satellite signals may not be received. The navigator will manually enter present position, date, and time prior to conducting the INU alignment.

A22.1.6. **(552ACW) Closing Cocked Aircraft.** Ensure the following items are checked prior to closing the aircraft door:

A22.1.6.1. **(552ACW)** Gear pins.

A22.1.6.1.1. **(552ACW)** If cocking outdoors and aircraft will remain outdoors: All gear pins will be removed and stowed. The nose gear T-handle and one grounding wire will remain installed. As standard safety requirements, these two items do not require an entry in the aircraft forms.

A22.1.6.1.2. **(552ACW)** If cocking in a hangar **or** the aircraft will be towed into a hangar, all gear pins and the nose gear T-handle will remain installed for safety. The NLG scissors will be disconnected and the tow bar remain connected while the aircraft is in the hangar.

A22.1.6.1.3. **(552ACW)** Both the gear pins and the scissors/tow bar will require individual Red X entries in the aircraft forms and cause an overall Red X status. Also, note these two items in the cocking entry in the AFTO Form 781.

A22.1.6.2. **(552ACW)** Switch Positions.

A22.1.6.2.1. **(552ACW)** FE Upper Panel:

A22.1.6.2.1.1. (552ACW) APU Bleed Switch – OFF (recessed – ON indicator extinguished)

A22.1.6.2.1.2. (552ACW) Emergency Power Switch – OFF.

A22.1.6.2.1.3. (552ACW) Battery Switch – OFF.

A22.1.6.2.1.4. (552ACW) DC Meter Selector Switch – not in AV or LTG position.

A22.1.6.2.2. (552ACW) FE Auxiliary Panel:

A22.1.6.2.2.1. (552ACW) APU Door Indicator – extinguished.

A22.1.6.2.3. (552ACW) Pilot Overhead Panel:

A22.1.6.2.3.1. (552ACW) Emergency Exit Lights Switch – OFF.

A22.1.6.2.4. (552ACW) P67-2 Panel:

A22.1.6.2.4.1. (552ACW) Emergency Lights Arming Switch – OFF.

A22.1.6.3. (552ACW) Complete AFTO 781A IAW [paragraph A22.1.9](#) Place forms inside the radio access door.

#### A22.1.7. (552ACW) Opening Cocked Aircraft.

A22.1.7.1. (552ACW) Except for operational necessity, cocked aircraft will not be routinely opened with expectations of maintaining the cocked status. See the specific procedures for towing or fueling in paragraph A22.1.8.

A22.1.7.2. (552ACW) For a cocked aircraft to be opened and the cocked status maintained, an AC or FE must be onboard. For this purpose, the following AC/FE combinations may be used:

1) AC/FE who cocked the aircraft, 2) AC/FE who will fly the aircraft, 3) AC/FE on duty as cocking crew, 4) SOF (AC) on duty, 5) EET AC/FE, or 6) Merlin1/2 .

A22.1.7.3. (552ACW) If equipment and/or configuration changes are not made, the aircraft may be closed and returned to cocked status without an additional cocking entry in the aircraft forms.

A22.1.7.4. (552ACW) If equipment and/or configuration changes are made, or any new entries are made in the aircraft forms, the cocked status may still be maintained if the following procedures are followed:

A22.1.7.4.1. (552ACW) All aircraft configurations are returned to the original cocked status.

A22.1.7.4.2. (552ACW) A new Exceptional Release is signed for any new entries in aircraft forms.

A22.1.7.4.3. (552ACW) The AC/FE will make an Info Note entry, explaining why the aircraft was opened, certifying the onboard presence of the AC/FE, and certifying all aircraft configurations returned to the original cocked status.

A22.1.7.5. (552ACW) Maintenance leadership (AMXS Maintenance Officer, AMXS Superintendent, and AMXS Pro-Supers) may open the radio access door for the purpose

of reviewing the forms. Any maintenance actions or changes to the forms will break the cock. The forms will be returned to the radio access bay after review.

#### A22.1.8. (552ACW) Towing or Fueling Cocked Aircraft.

A22.1.8.1. (552ACW) Situations may arise which require a cocked aircraft to be towed or fueled while maintaining its cocked status. The following procedures will apply to maintain the cocked status:

A22.1.8.1.1. (552ACW) An AC/FE (meeting one of the criteria from [paragraph A22.1.7.2](#)) will be onboard to supervise all towing or refueling activities. After these activities are complete, the AC/FE will ensure all aircraft configurations are returned to the original cocked status. **In particular, ensure the NLG scissors are reconnected, if required.**

A22.1.8.1.2. (552ACW) The AC/FE will make an Info Note entry, explaining why the aircraft was opened, certifying the onboard presence of the AC/FE, and certifying all aircraft configurations are returned to the original cocked status.

#### A22.1.9. (552ACW) Aircraft Status and Forms.

A22.1.9.1. (552ACW) The following will result in an overall Red X status: 1) Gear pins installed – if cocking in hangar or preparing for tow. 2) NLG scissors disconnected/tow bar connected – if cocking in a hangar or preparing for tow. 3) SF-6 Cart (if connected). Each of these items will be recorded in a separate Red X entry in the aircraft forms. These entries will be recorded before the cocking entry.

A22.1.9.2. (552ACW) Maintenance personnel will perform normal preflight inspections. The Pro Super will verify all discrepancies have been reviewed and corrected prior to the aircrew accepting the aircraft for cocking. In the AFTO Form 781A pages, the Red Line will be initialed below all discrepancies **except** the Red X entries for the items listed above.

A22.1.9.3. (552ACW) Aircraft commanders will ensure the AFTO Form 781A pages meet the following requirements, which have been agreed to by maintenance. **If these requirements are not met, the aircraft will not be accepted for cocking.** 1) The Red Line **will** be drawn below all entries except for the three Red X entries listed above. 2) The Red Line **will** be initialed by the Pro Super. 3) The Red X entries due to the cocking status **will** be below the Red Line.

A22.1.9.3.1. (552ACW) An Exceptional Release **will not** be accomplished prior to cocking when any of the three specific Red X conditions exist. In these cases, an ER **must** be accomplished by the Pro Super prior to flight.

A22.1.9.4. (552ACW) Cocking Entry in Aircraft Forms. The AC will make the cocking entry. Note the following in the cocking entry, as applicable:

A22.1.9.4.1. (552ACW) Cocking Status – CC1, CC2, or CC3.

A22.1.9.4.2. (552ACW) Crypto codes zeroized.

A22.1.9.4.3. (552ACW) Overall Red X status (if gear pins installed, NLG scissors disconnected, or SF-6 cart connected).



A22.1.10. **(552ACW) Cock Expiration.** The cock may be maintained through use of the Alert Preflight Procedure IAW T.O. 00-20-1. See [paragraph A22.1.13](#) To maintain cocked status, the Alert Preflight must be accomplished IAW T.O. 1E-3A-1 a maximum of 72 hours after the oldest of the maintenance preflight inspections is completed and a new cocking write-up will be entered in the aircraft forms. A full maintenance preflight is not required during the Alert period.

A22.1.11. **(552ACW) Cold Weather Operations.**

A22.1.11.1. **(552ACW)** Cocked aircraft will **not** be deiced unless an AC or FE is present aboard the aircraft.

A22.1.11.2. **(552ACW)** Stabilizer Trim.

A22.1.11.2.1. **(552ACW)** If it is anticipated that ice and snow can accumulate on the airplane after parking, set the horizontal stabilizer 2.5 units airplane nose down IAW T.O. 1E-3A-1. This will minimize any accumulation on the stabilizer. For standardization, this trim setting will be used in all weather conditions.

A22.1.11.2.2. **(552ACW)** Ensure the trim is **NOT** set to **full nose down**. In extreme conditions, the stabilizer could freeze and become stuck in that position.

A22.1.12. **(552ACW) SF-6 Ground Service Cart.** SF-6 ground carts (if used) may be left connected to cocked aircraft. The following steps will be performed to ensure a fully charged SF-6 system is available for flight operations:

A22.1.12.1. **(552ACW)** Maintenance personnel will connect the SF-6 ground cart to the aircraft and service the onboard SF-6 bottles prior to aircrew arrival for cocking or preflight.

A22.1.12.2. **(552ACW)** Aircraft Status with SF-6 Cart Connected. The SF-6 ground cart will remain connected to the aircraft while the aircraft is cocked. Maintenance personnel will enter a Red X entry into the AFTO Forms 781 annotating that the SF-6 ground cart is connected to the aircraft and the SF-6 access panel has been removed. Once the aircraft is cocked, the SF-6 ground cart **will not** be removed or replaced. Aircraft commanders will ensure the AFTO Form 781A is completed IAW [paragraph A22.1.9](#) The ER will not be signed off until the flying aircrew arrives to launch the cocked aircraft.

A22.1.12.3. **(552ACW)** When the aircrew arrives at the cocked aircraft, the ART will immediately turn on one of the onboard SF-6 bottles. Maintenance personnel will then disconnect the SF-6 ground cart, secure the SF-6 access panel and sign off the AFTO Forms 781 Red X entry.

A22.1.12.4. **(552ACW)** The Pro Super will inspect the SF-6 access panel and sign off the ER.

A22.1.12.5. **(552ACW)** The FE will inspect the aircraft prior to accepting the aircraft for flight operations, ensuring the SF-6 access panel has been re-attached.

A22.1.13. **(552ACW) Alert Preflight Procedure.** Cocking crews and maintenance will rotate tires and perform the ALERT PREFLIGHT in Section II of T.O. 1E-3A-1. This procedure may be used to indefinitely maintain the cocked status of a previously cocked

aircraft. This procedure (to include tire rotation) must be accomplished a maximum of 72 hours from the previous cock to maintain the cocked status, and will be documented with a new cocking write-up in the aircraft forms by the AC. Accomplish the BEFORE ENTERING AIRPLANE checklist and BEFORE INTERIOR INSPECTION checklist before rotating tires. The tires will be rotated by towing the aircraft, using the TOWING AND PUSHBACK checklist (NOTE: only a few feet of movement is required to roll the tires off the “flat spot”). The crew will then use the BEFORE START checklist to return the aircraft to a cocked state. Perform any necessary items from the EXTERIOR INSPECTION checklist (for example, ensure gear doors are closed).

**A22.1.14. (552ACW) Hangar Procedures - Cock and Launch.**

**A22.1.14.1. (552ACW) Cock Prior to Tow into the hangar.**

A22.1.14.1.1. (552ACW) Aircraft may be positioned outside for cocking prior to tow into the hangar.

A22.1.14.1.2. (552ACW) Aircrews will cock the jet outside the hangar, but wait to sign off the cock in the aircraft forms until after the jet is pushed into hangar. The AC or FE will remain onboard during the tow to maintain the cocked status.

**A22.1.14.2. (552ACW) Cock or Preflight inside the hangar. If the aircraft is already in the hangar, a cock and/or preflight may still be performed with the following limitations:**

**A22.1.14.2.1. Bleed air system (APU cannot be operated inside hangar).**

A22.1.14.2.1.1. (552ACW) Case I – Cocking the Aircraft. Bleed air preflight is required. External air must be available to preflight system. This requires using a ground air cart positioned outside the hangar and connected by a long hose, which may be impractical. **If bleed air is not available, the aircraft cannot be cocked in the hangar.** It must be towed outside the hangar to operate the APU for bleed air.

A22.1.14.2.1.2. (552ACW) Case II – Normal Preflight for Launch (aircraft is not cocked). Perform normal bleed air check if external air is available. If external air is not available, bleed air check may be delayed until APU is started during tow out of hangar for engine start.

**A22.1.14.3. (552ACW) Conditions inside the hangar.**

A22.1.14.3.1. (552ACW) Be aware of two potential problems for getting an aircraft out of a hangar. 1) Hangar doors sometimes won't open, especially the tail door. 2) Icy ramp may prevent towing aircraft from hangar.

A22.1.14.3.2. (552ACW) Normally, hangar space is available to store one aircraft for launch. Normally, that aircraft will be dedicated to Operation NOBLE EAGLE.

A22.1.14.3.3. (552ACW) Primary hangar will be Dock 4, followed by Dock 2. Other hangars may be selected as necessary and determined by maintenance.

A22.1.14.3.4. (552ACW) Hardstand stairs will be available. Motorized air stairs are not authorized in the hangar.

A22.1.14.3.5. (552ACW) External power will be available in the hangar. External air may be available.

A22.1.14.4. **(552ACW)** Aircraft orientation.

A22.1.14.4.1. **(552ACW)** Aircraft will be backed into the hangar with the nose pointing out.

A22.1.14.4.2. **(552ACW)** Tow bar will be left connected, as required by maintenance regulations (the tow vehicle will not be connected).

A22.1.14.4.3. **(552ACW)** Nose gear scissors will be disconnected.

A22.1.14.4.4. **(552ACW)** All gear pins and nose gear T-handle will be left installed until aircraft has been towed out of hangar for engine start.

A22.1.14.5. **(552ACW)** Aircraft status in the hangar.

A22.1.14.5.1. **(552ACW)** Aircraft status will be an overall Red X, reflecting Red X entries in aircraft forms for:

A22.1.14.5.1.1. **(552ACW)** Disconnected nose gear scissors/tow bar connected.

A22.1.14.5.1.2. **(552ACW)** Gear pins still installed.

A22.1.14.5.1.3. **(552ACW)** SF-6 Ground Cart, as applicable.

A22.1.14.5.2. **(552ACW)** For cocking, aircraft commanders will ensure the AFTO Form 781A is completed IAW [paragraph A22.1.9](#)

A22.1.14.5.3. **(552ACW)** An Exceptional Release must be accomplished once scissors are reconnected and all gear pins/T-handle are removed and stowed (upon completion of towing the aircraft out of the hangar for engine start).

A22.1.14.5.4. **(552ACW)** Towing aircraft out of hangar for launch. The Towing and Pushback Checklist in T.O. 1E-3A-1 is not designed for preflight operations. Several necessary preflight actions are not addressed.

A22.1.14.5.4.1. **(552ACW)** Hangar Launch Procedures Checklist - Aircrews will follow the Hangar Launch Procedures Checklist in Attachment 21. This checklist incorporates all items from the Towing and Pushback Checklist in T.O. 1E-3A-1. Therefore, by following this guidance, aircrews will perform the Dash 1 checklist by default as well as perform additional necessary preflight actions.

A22.1.14.5.4.2. **(552ACW)** Starting APU - FE will coordinate with ground crew to start APU anytime after APU doors are outside hangar.

A22.1.14.5.4.3. **(552ACW)** Aircraft position - When towing from Dock 2 or 4, aircraft will be positioned outside the Birdcage, abeam Alpha Row for engine start. For other hangars, position will be coordinated between AC and ground crew.

A22.1.14.5.5. **(552ACW)** Once aircraft has come to a stop:

A22.1.14.5.5.1. **(552ACW)** Ground crew will remove tow bar and reconnect nose gear scissors. After confirming hydraulics system is operating, all gear pins and T-handle will be removed and stowed aboard the aircraft.

A22.1.14.5.5.2. **(552ACW)** Ground crew will sign off Red X entries in 781 and sign new Exceptional Release.

A22.1.14.5.5.3. (**552ACW**) Navigator will initiate GINS alignment.

**Attachment 23 (Added-552ACW)****ASO KIT INVENTORY/MINIMUM REQUIREMENTS**

**A23.1. (552ACW) Purpose.** Provide a standard for minimum contents, classified document accountability and maintenance of 552 OG surveillance kits.

**A23.2. (552ACW) Minimum ASO Kit Requirements.** As a minimum, units will ensure ASO kits contain the most current version of the following material:

A23.2.1. (552ACW) 552 ACWHB 55-1 Vol VII—1 ea.

A23.2.2. (552ACW) T.O. 1E-3A-43-1-1-1—1 ea.

A23.2.3. (552ACW) CONR OPTASKLINK—1 ea.

A23.2.4. (552ACW) JTAO Handbook—1 ea.

A23.2.5. (552ACW) Secret Cover Sheets—5 ea.

A23.2.6. (552ACW) Confidential Cover Sheets—5 ea.

A23.2.7. (552ACW) Manila Envelope—1 ea.

A23.2.8. (552ACW) Classified Destruct Envelope—1 ea.

A23.2.9. (552ACW) Numbered Seals—4 ea.

**A23.3. (552ACW) Additional ASO Kit Materials.** The following material must be maintained in the ASO kit or be immediately available for sign out by the ASO/SST should the material be required for the mission:

A23.3.1. (552ACW) Nellis Daily Training OPTASKLINK

A23.3.2. (552ACW) FACSAC Vacapes OPTASKLINK

A23.3.3. (552ACW) FACSAC Jacksonville OPTASKLINK

A23.3.4. (552ACW) FACSAC San Diego OPTASKLINK

A23.3.5. (552ACW) Canada OPTASKLINK

**A23.4. (552ACW) Optional Material.** Optional material may be maintained in the ASO kit at the discretion of the unit. Units will annotate optional material in the “additional items” section of the OG Form 88.

**A23.5. (552ACW) Surveillance Kit Inventory.** Units will use the OG Form 88 to sign out and inventory ASO kits. 552 OSS/OSK will be the POC for updating the OG Form 88 and providing updated forms to unit SARMS, DOWs, and 552 OG/CCA for inclusion on the OG publishing web site.

**Attachment 24 (Added-552ACW)****AVIATION INTERNET WEBSITES**

**A24.1. (552ACW) Purpose.** The following provides a listing of sites that crews can utilize during the mission planning process and day of the mission to obtain the most current information. The links listed are to official military (.mil) or government (.gov) websites only. Aircrew are discouraged from using (.com) or (.org) sites for information to be used on a mission.

**A24.2. (552ACW) Weather**

A24.2.1. (552ACW) Tinker <https://wwwmil.tinker.af.mil/weather>

A24.2.2. (552ACW) USAF <https://weather.afwa.af.mil>

A24.2.3. (552ACW) NOAA <http://adds.aviationweather.gov>

**A24.3. (552ACW) NOTAMS**

A24.3.1. (552ACW) DOD <https://www.notams.jcs.mil>

A24.3.2. (552ACW) FAA [http://www.faa.gov/air\\_traffic/publications](http://www.faa.gov/air_traffic/publications)

**A24.4. (552ACW) Various Publications**

A24.4.1. (552ACW) NIMA Aeronautical Products  
<http://aero.nga.mil/products/digitalaero/index.html>

A24.4.2. (552ACW) NACO Aeronautical Products  
<http://www.naco.faa.gov/index.asp?xml=naco/onlineproducts>

A24.4.3. (552ACW) FAA Air Traffic Pubs [http://www.faa.gov/air\\_traffic/publications](http://www.faa.gov/air_traffic/publications)

A24.4.4. (552ACW) Airfield Suitability Reports <https://www.afd.scott.af.mil/>

A24.4.5. (552ACW) AF Pubs and Forms [www.e-publishing.af.mil](http://www.e-publishing.af.mil)

**A24.5. (552ACW) Overseas Operations**

A24.5.1. (552ACW) Foreign Clearance Guide  
[www.fcg.pentagon.mil](http://www.fcg.pentagon.mil)

A24.5.2. (552ACW) FAA Oceanic Branch  
[http://www.faa.gov/about/office\\_org/headquarters\\_offices/ato/service\\_units/enroute/oceanic](http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/enroute/oceanic)

A24.5.3. (552ACW) ICAO

A24.5.4. (552ACW) NATO <http://www.nato.int>

A24.5.5. (552ACW) CIA [www.cia.gov/cia/publications/factbook/index.html](http://www.cia.gov/cia/publications/factbook/index.html)

A24.5.6. (552ACW) Department of State <http://www.state.gov/travel>

**A24.6. (552ACW) USAF Aviation Resources**

A24.6.1. (552ACW) AIS <https://afkm.wpafb.af.mil/ais>

A24.6.2. (552ACW) AFFSA Must be accessed through the AF Portal

A24.6.3. (552ACW) AF Safety <http://afsc.af.mil>

**A24.7. (552ACW) Civil Aviation Resources**

A24.7.1. (552ACW) FAA [www.faa.gov](http://www.faa.gov)

A24.7.2. (552ACW) NOAA <http://aviationweather.gov/>

A24.7.3. (552ACW) NTSB

## Attachment 25 (Added 552 ACW)

## AFI 11-2E-3V3 MANEUVER RESTRICTIONS FOR PERSONNEL OTHER THAN AIRCREW

**Note:** Host nation riders are considered aircrew and have no restrictions (per JIATF South agreement).

Type of Personnel	Aerial Refueling & Approaches	Touch and Go Landings	Simulated Emergencies, <u>and</u> Simulated Engine out Procedures	Take off and landing Policy
PAX	YES	NO	NO	If not under IP/SEFE supervision, the copilot must be "experienced and the AC must be SQ/CC certified (No DVs Code 4 or higher). Ref 4.3.2.3.1
<b>Non-Aircrew Personnel Not Considered PAX</b> Ref. 4.12.4.1 <ul style="list-style-type: none"> <li>• Wing supervisors</li> <li>• E-3 MX personnel</li> <li>• AFA/AFROTC Cadets</li> <li>• FAA/ATC Personnel</li> <li>• Weapons Directors</li> <li>• ACC TRSS DET6 Personnel not on AO'S</li> <li>• Airborne Control Element (ACE) team members</li> <li>• US Customs personnel flying under provisions of AFI 11-401 AND MAJCOM Supplement</li> <li>• Mission essential personnel (MEP), Security Forces</li> <li>• Intelligence personnel</li> </ul>	YES	YES	NO	NO RESTRICTION



Type of Personnel	Aerial Refueling & Approaches	Touch and Go Landings	Simulated Emergencies, <u>and</u> Simulated Engine out Procedures	Take off and landing Policy
<b>Non-Aircrew Personnel Not Considered PAX With Group Commander Waiver Prior to Take Off</b> Ref. 4.12.4.2 <ul style="list-style-type: none"> <li>• Military members not on aeronautical orders who are awaiting training</li> <li>• ACG Personnel conducting in-flight software testing</li> <li>• Mission Crew Training (MCT)/Flight Crew Training (FCT) Contract instructors in direct support of training and operations</li> </ul>	YES	YES- with waiver before take off	NO Except for FCT Ref. 4.13.5.6	NO RESTRICTION
<b>DV PAX</b> Ref. 4.3.1.1.2	YES	NO	NO	Aircraft commander will make all takeoffs and landings from the left seat when a distinguished visitor (CODE 4, CODE 4 equivalent or higher) is onboard as a passenger.

**Attachment 26 (Added-552ACW)****SUMMARY OF WAIVERS TO E-3 LOCAL OPERATING PROCEDURES**

**A26.1. (552ACW) Purpose.** Provide a summary of waivers, listed by approving authority (SQ/DO, OG/CC, WG/CC) to E-3 Local Operating Procedures.

**A26.2. (552ACW) 552 ACW/CC Waivers.**

A26.2.1. **(552ACW)** WG/CC may waive (extend) basic (unaugmented) aircrew duty period up to 4 hours, from 16 hours to 20 hours. **REF** AFI 11-2E-3V3 para 3.3.2. and AFI 11-202V3, ACC Sup 1, para 9.10.1.

A26.2.2. **(552ACW)** WG/CC may waive aircraft security requirements at enroute stops, including protection Level 2 requirements. **REF** AFI 11-2E-3V3 para 3.15.1.

A26.2.3. **(552ACW)** WG/CC and OG/CC share general waiver authority for AFI 11-2E3V3, 552 ACW Sup 1. **REF** AFI 11-2E-3V3, 552 ACW Sup 1, para 6.1.1.

A26.2.4. **(552ACW)** WG/CC may waive aircraft position monitoring if deemed necessary to accomplish the mission. **REF** AFI 11-2E-3V3 para 3.10.

A26.2.5. **(552ACW)** WG/CC may waive (extend) aircrew duty day for alert crews by 2 hours (from 12 to 14 hours). **REF** AFI 11-2E-3V3 paras 3.22.2. and 3.3.2.

**A26.3. (552ACW) 552 OG/CC Waivers.**

A26.3.1. **(552ACW)** OG/CC may waive general mission planning requirements. **REF** AFI 11-2E-3V3 para 2.5.

A26.3.2. **(552ACW)** OG/CC may authorize flying without a safety observer in Seat 5. **REF** AFI 11-2E-3V3 para 3.2.2.

A26.3.3. **(552ACW)** OG/CC determines augmented mission crew composition, based on mission requirements. **REF** AFI 11-2E-3V3 para 3.3.1.2.

A26.3.4. **(552ACW)** OG/CC may waive (reduce) minimum time from landing to subsequent takeoff to less than 16 hours. **REF** AFI 11-2E-3V3, 552 ACW Sup 1 para 6.3.1.

A26.3.5. **(552ACW)** OG/CC may waive (reduce) minimum planned ground time between landing and subsequent takeoff to less than 18 hours for deploying aircrews. **REF** AFI 11-2E-3V3 para 3.3.5.

A26.3.6. **(552ACW)** OG/CC may waive (reduce) minimum runway length and width (below 7000' and 135') and minimum taxiway width (below 75'). **REF** AFI 11-202V3, ACC Sup 1, Table 2.1.

A26.3.7. **(552ACW)** OG/CC may waive (reduce) minimum takeoff weather below 1600 RVR, to as low as 1000 RVR, for HHQ-directed missions. **REF** AFI 11-202V3, ACC Sup 1, para 8.6.2.2.

A26.3.8. **(552ACW)** OG/CC may waive Tier I Aircraft Commanders to fly approaches using visibility-only weather minimums (2400 RVR). **REF** AFI 11-2E-3V3, 552 ACW Sup 1, para 6.4.9.1.

A26.3.9. **(552ACW)** OG/CC may waive Tier II aircraft commanders to use Tier I weather minimums. **REF** AFI 11-2E3V3, 552 ACW Sup 1 para 6.4.9.2.

A26.3.10. **(552ACW)** OG/CC may waive (increase) crosswind limits for takeoff and landing above the normal limits (up to T.O. 1E-3A-1-1 limits). **REF** AFI 11-2E-3V3 para 4.8.8.1.

A26.3.11. **(552ACW)** OG/CC may authorize landing with crosswinds exceeding normal limits due to a reported variability under the stated restrictions. **REF** AFI 11-2E-3V3, 552 ACW Sup 1, para 6.4.5.6.

A26.3.12. **(552ACW)** OG/CC may authorize the (less restrictive) mission accomplishment method of computing TOLD. **REF** AFI 11-2E-3V3 para 4.8.3.2

A26.3.13. **(552ACW)** OG/CC may waive the minimum RCR for takeoffs and landings to an RCR of 7 when operational necessity warrants. **REF** AFI 11-2E-3V3 para 4.8.7

A26.3.14. **(552ACW)** OG/CC may waive (increase) maximum landing weight above 250,000 lbs if mission requirements dictate. **REF** AFI 11-2E-3V3 para 4.8.13.2.

A26.3.15. **(552ACW)** OG/CC may waive (reduce) onboard fuel reserves to: 12,000 lbs at IAF, 10,000 lbs minimum fuel, and 8,000 lbs emergency fuel. **REF** AFI 11-2E-3V3 para 4.13.4.

A26.3.16. **(552ACW)** OG/CC may authorize approaches and departures with thunderstorms officially observed between 5 and 10 miles from the airport. The thunderstorms must not produce any hazardous conditions at the airport or in the takeoff/landing corridor, and must not be forecast/observed to be moving in that direction. **REF** AFI 11-2E-3V3 para 4.17.2 and AFI 11-202V3, ACC Sup 1, para 5.23.2.

A26.3.17. **(552ACW)** OG/CC may waive compensation time for alert crews. **REF** AFI 11-2E-3V3 para 3.22.6.1.

A26.3.18. **(552ACW)** OG/CC may waive (extend) transition duty day from 12 hours up to 16 hours. **REF** AFI 11-2E-3V3 para 3.18.4.1 and AFI 11-2E3V3, 552 ACW Sup 1 para 6.4.5.1.1 and AFI 11-202V3, ACC Sup 1 para 9.8.6.

A26.3.19. **(552ACW)** OG/CC (or DETCO) may approve transition outside the CONUS. **REF** AFI 11-2E-3V3, 552 AWC Sup 1 para 6.4.5.1.2.

A26.3.20. **(552ACW)** OG/CC may authorize touch-and-go landings with the following passengers on board: military members not on aeronautical orders who are awaiting training, ACG personnel conducting in-flight software testing and Mission Crew Training (MCT) and Flight Crew Training (FCT) contract instructors in direct support of training and operations. **REF** AFI 11-2E-3V3 para 4.8.14.4.2.

A26.3.21. OG/CC may waive (increase) maximum in-flight gross weight vs. altitude above the 2.5 G load factor limit. **REF** AFI 11-2E-3V3 para 4.28.2.

A26.3.22. **(552ACW)** OG/CC may authorize missions with abnormal aircraft configurations, such as 6 or 7 brake operation, partial spoilers, or inoperative antiskid brakes. **REF** AFI 11-2E-3V3 para 4.29.

A26.3.23. **(552ACW)** OG/CC may authorize unscheduled takeoffs or landings at Tinker AFB between 2230 and 0600 local. **REF** AFI 11-2E-3V3, 552 ACW Sup 1 para 6.4.3.2.1.

A26.3.24. **(552ACW)** OG/CC may authorize additional airfields to be used as familiar fields for night transition, under the stated conditions. **REF** AFI 11-2E-3V3, 552 ACW Sup 1 para 6.4.5.1.2.1.2

A26.3.25. **(552ACW)** OG/CC may waive requirement to check out aircraft mission systems while enroute to deployed locations, when operational requirements prevent minimum crew manning to do so. **REF** AFI 11-2E-3V3, 552 ACW Sup 1 para A4.8.1.

A26.3.26. **(552ACW)** OG/CC and WG/CC share general waiver authority for AFI 11-2E3 Volume 3, 552 ACW Sup 1. **REF** AFI 11-2E-3V3, 552 ACW Sup 1 para 6.1.1.

A26.3.27. **(552ACW)** OG/CC may authorize continued use of Portable GPS Units (PGUs) on aircraft with integrated GPS. **REF** AFI 11-202V3, ACC Sup 1 para 5.8.6.

A26.3.28. **(552ACW)** OG/CC may waive bird watch condition restriction based on actual bird activity. OG/CC is the final authority on the flying activity during bird watch conditions. This authorization will be based on the SOF's assessment or his/her own observation. **REF** 552 ACWI 91-212 paras 1.2 and 2.2.

A26.3.29. **(552ACW)** OG/CC may waive (increase) SOF duty day above 12 hours. **REF** AFI 11-418 para 9.2.

A26.3.30. **(552ACW)** OG/CC may waive (increase) the 12 hour SOF duty day to 16 hours during reduced flying operations. **REF** AFI 11-418, 552 ACW Sup 1 para 9.2.2.

A26.3.31. **(552ACW)** OG/CC may authorize additional SOF duty locations (already listed in 552 ACW Sup 1). **REF** AFI 11-418 para 10.2.

A26.3.32. **(552ACW)** OG/CC may waive SOF upgrade requirements for previously qualified SOFs. **REF** AFI 11-418 para 14.4.

A26.3.33. **(552ACW)** OG/CC has general waiver authority for AFI 11-418, Flying Operations Supervision. **REF** AFI 11-418 para 19.

#### **A26.4. (552ACW) SQ/DO Waivers.**

A26.4.1. **(552ACW)** SQ/DO may waive (reduce) minimum of 12 hours of non-duty time following a flight before reporting for normal non-flying duties. **REF** AFI 11-2E-3V3 para 3.3.3.

A26.4.2. **(552ACW)** SQ/DO may authorize transition when scheduled takeoff or final landing is between 2400 and 0600 local. **REF** AFI 11-2E-3V3 para 3.18.1.

A26.4.3. **(552ACW)** SQ/DO may waive (extend) period of transition at one time with mission crew onboard beyond 1 + 30 hours not to exceed 2+30 hours per sortie. **REF** AFI 11-2E-3V3 para 3.18.2.

A26.4.4. **(552ACW)** SQ/DO may authorize transition when not planned during mission planning or if unforeseen circumstances prevented prior coordination. **REF** AFI 11-2E-3V3 para 3.18.3.

**Attachment 27 (Added-552ACW)****OPERATIONAL CHECK FLIGHTS**

**A27.1. (552ACW) Purpose.** This attachment establishes procedures to be used in scheduling and executing Operational Check Flights (OCF). The purpose of an OCF is to verify that E-3 systems operate satisfactorily after extended maintenance or modification, where ground operational checks cannot verify the proper operation of the affected system(s). They can also be accomplished when requested by 552 MXG/CC, in coordination with 552 OG/CC, to ensure that an aircraft is capable of deploying and conducting combat operations.

**A27.2. (552ACW) OCF Criteria.** OCFs will be performed following Programmed Depot Maintenance (PDM) or whenever maintenance/modifications have been performed on an aircraft and technical data does not provide procedures to adequately operationally check the affected system(s) on the ground. The 552 MXG/CC may request an OCF whenever maintenance was performed that in his/her view warrants additional operational checks in flight. These requests should be kept to a minimum and only exercised when the ground operational checks could not adequately verify the proper operation of the affected systems.

**A27.3. (552ACW) OCF Scheduling Procedures.** 552 MXG will notify 552 OSS/OSR of the need for an OCF, including reason, type of maintenance/modification performed, and tail number of aircraft. 552 MXG will notify 552 OSS/OSR via telephone or during the weekly scheduling meeting, 552 OSS/OSR will serve as the single point of contact within the 552 OG and will coordinate with other OG agencies concerning the OCF. 552 OSS/OSR will coordinate with 552 OSS/OSO to schedule the OCF, providing tail number, date and location request, and any other requirements. 552 OSS/OSO will coordinate with squadron schedulers to determine which squadron will provide the SARM support and take appropriate actions to create the OCF load in C2MS to include timing, location, and other requirements set by 552 OSS/OSR. 552 OSS/OSR will build the crew to support the OCF.

**A27.4. (552ACW) OCF Crew Manning.** 552 OSS/OSR will utilize 552 OSS personnel to the maximum extent possible when filling required positions for the OCF. The squadron providing SARM support will be notified of any unfilled positions three working days prior to the OCF, if feasible. This squadron will then coordinate to fill the remaining positions. The minimum crew complement for an OCF is:

Pilot (P)	2
Navigator (N)	1
Flight Engineer (FE)	1
Mission Crew Commander (MCC)	1
Air Surveillance Officer (ASO)	1
Senior Surveillance Technician (SST)	1
Electronic Combat Officer (ECO)	1
Communications System Operator (CSO)	1
Communications Technician (CT)	1
Computer Display Maintenance Technician (CDMT)	1
Radar Technician (ART)	1

Crews may be tailored for specific objectives or multiple crew positions may be desirable for additional technical expertise or execution of emergency duties. Deviations from the minimum

crew complement must be approved by Chief, 552 OSS/OSR.

**A27.5. (552ACW) OCF Mission Planning Procedures.** Prior to mission planning, 552 OSS/OSR will establish OCF objectives, develop test scripts, and assign an OCF director from the mission crew. Typically, the OCF director will be the MCC or the senior 552 OSS/OSR representative on crew. The OCF AC and MCC are both responsible for conducting mission planning, and will coordinate with the OCF director to ensure objectives and test scripts are in accordance with all regulations and safety procedures. Mission planning will generally be accomplished on the same day of the OCF. Showtime will be 3+30 hours prior to schedule takeoff to allow for same day planning. If additional testing requirements are placed on the OCF, mission planning and show time may be adjusted, as required, by the OCF AC/MCC/director.

**A27.6. (552ACW) OCF Flight Procedures.** The OCF crew is responsible for testing operational status of the E-3 and will test all systems affected by depot maintenance or as specified by 552 MXG. The OCF director will ensure all test scripts and appropriate checklists are executed. Mission route, timing, and location should allow proper checkout of E-3 systems and any new equipment or software. Orbit location should be chosen in an area where Electronic Support Measures, data links, communications, and any other applicable equipment may be suitably tested. Crews may conduct additional software and/or hardware testing concurrently with the OCF as long as it does not interfere/conflict with OCF test scripts.

**A27.7. (552ACW) OCF Post - Flight Procedures.** Results of the OCF will be annotated in the 781A series forms with a detailed description of the failure, if applicable. Following a successful OCF (one with no NMC write-ups or significant PMC write-ups), the OCF director possesses the authority to accept the jet for operational use and the aircraft can be placed into the next day's normal flight schedule. Following the maintenance and aircrew debriefs, the OCF Director will inform 552 OSS/OSR of the OCF results. If the aircraft fails any portion of the OCF, the OCF director will make recommendations concerning corrective actions needed to successfully pass the OCF. Regardless of the results, 552 OSS/OSR will compile an after-action report including an overall OCF status of pass/fail, major write-ups to E-3 systems noted during the flight, and the statement that the aircraft has either been returned to operational use or given back to MXG for further maintenance and testing. This report will be forwarded to the 552 OG/CC on the first duty day following the OCF, with courtesy copies to 552 MXG/CC and the 552 OSS/CC/DO. Upon 552 OG/CC concurrence of a failed OCF, 552 OSS/OSR will coordinate with 552 MXG for further OCF scheduling. The intent of this section is to accept or reject the jet at the MX debrief when both sides are in agreement, provide rules governing this action, and have the OG and MXG commanders retain the ability to resolve disputes.

**A27.8. (552ACW) OCF Training / Evaluation Restrictions.** The primary task of all OCF flights is to return the aircraft to operational status. Therefore, training or evaluations should not be scheduled on OCFs. Any training, to include weapons training, must be approved by Chief, 552 OSS/OSR. Any evaluations must be approved first by 552 OG/OGV and then by Chief, 552 OSS/OSR. Requests for training or evaluations must be made to 552 OSS/OSR at least 2 duty days prior to the OCF.

**Attachment 28 (Added-552ACW)****OPERATIONAL TEST FLIGHTS**

**A28.1. (552ACW) Purpose.** This attachment establishes procedures to be used in scheduling and executing operational test flights. The purpose of an operational test flight is to test AOC/Software modifications, data link hardware and software, combat identification, or to support tests of external agencies.

**A28.2. (552ACW) Planning and Executing Operational Test Support Flights.** Operational test flights encompass organic (E-3 systems/employment) and external agency testing. The Chief, 552 OSS/OSR, is the OPR for all operational test support activity for the E-3.

A28.2.1. **(552ACW)** Per OG/CC direction, dedicated organic test sorties are vital to software/hardware improvement efforts as well as the development of new AWACS TTPs. They will be given the top priority, by 552 OSS/OSO, behind HHQ taskings for contingencies. The 970 AACS is the preferred agency for execution of these sorties. 513 OSF/OSO will coordinate these dedicated test sorties directly with 552 OSS/OSO. Unless otherwise coordinated, flying hours for the test sorties will be funded by the 970 AACS, while the dedicated sortie is allocated by the 552 OG and 552 MXG. 552 OSS/OSR will assign a test director to all test support flights. The test director will coordinate script requirements with the 970 AACS scheduling representative, who will coordinate mission timing, orbits, and external assets to support test requirements. The test director will oversee the execution of test scripts and will write an after-action report. This report will be sent to 552 OSS/OSR within 2 duty days of flight completion and 552 OSS/OSR will disseminate to appropriate agencies.

A28.2.2. **(552ACW)** For operational test flights supporting external agencies, the requesting agency will notify 552 OSS/OSO of their initial requirements and objectives. 552 OSS/OSO will coordinate with 552 OSS/OSR to make a determination on whether the 552 OG can support the request and if the required testing can be conducted in conjunction with a currently scheduled sortie, or if an additional sortie must be generated. **If a dedicated test sortie is required over an above the planned sortie activity for the required day, 552 OSS/OSO will coordinate with 552 MXG and Wing schedulers to determine if the additional sortie is supportable.** If support is possible, 552 OSS/OSR will coordinate with the operational squadron responsible for the sortie, to place a test director on the flight. The test director will coordinate with the external agency to ensure all requests are met, to the maximum extent possible. The test director will oversee the execution of test scripts and will write an after-action report. This report will be sent to 552 OSS/OSR within 2 duty days of flight completion and 552 OSS/OSR will disseminate to appropriate agencies. Any external requests for data reduction must be coordinated with ACC/A3YA and 552 ACW/XPR, IAW 552 ACWI 10-701, for release approval. For operational test flights of equipment installed on the E-3 coordination must include 552 ACW/XPR.

**Attachment 29 (Added-552ACW)****970 AACS MISSION PLANNING CELL STANDARDS**

**A29.1. (552ACW) Purpose.** This attachment establishes responsibilities, expectations and timing for the mission planning cell (MPC). The two basic types of mission planning addressed in this attachment are mission-type sorties (C, E, and S sorties or operational sorties) and pilot proficiency sorties.

A29.1.1. **(552ACW) Justification for the MPC.** The MPC concept is essential to Reserve AWACS flying operations. The majority of Reserve AWACS aircrew members are traditional reservists (TRs) who often cannot be part of the mission planning on the day prior to a sortie. TRs normally show up for the combined Coordination and Execution briefings the day of the flight. These MPC standards are also designed to mimic combat theatre operations for a better transfer of skills required for operational sorties.

A29.1.2. **(552ACW) MPC Goals.** Mission planning must be thorough enough and time for specialized briefings must be adequate enough to build situational awareness and allow time for possible changes (weather, mission activity, etc.). In addition, for training sorties, the show time allows plenty of time for instructors to conduct academic continuation training.

**A29.2. (552ACW) Responsibilities.**

A29.2.1. **(552ACW) 513 ACG/CC.** Ensures that facilities and equipment are adequate to meet the needs of the Mission Planning Cell (MPC).

A29.2.2. **(552ACW) 513 ACG/OGV.** Ensures that mission planning materials and procedures are standardized. Stan Eval will be responsible for building the masters and monthly sets of mission planning slides.

A29.2.3. **(552ACW) 513 OSF/CC.** Ensures that all support functions (e.g. current ops, intelligence, etc.) contribute the required mission planning components to the MPC.

A29.2.4. **(552ACW) 970 AACS/CC.** Ensures that mission planning has the highest priority among all other squadron functions.

A29.2.5. **(552ACW) 970 AACS/DO and ADOs.** Ensure that the MPC is selected (listed on the sortie briefing slides) and section chiefs have built the load list correctly, solving any Go/No-Go problems .

A29.2.6. **(552ACW) MPC Aircraft Commander (AC).**

A29.2.6.1. **(552ACW) Combat, Surveillance and Operational Sorties.** Ensures that all mission planning is accomplished IAW with required guidance. Coordinates with the MPC Navigator and MPC Flight Engineer for timing, routing, and fuel loads and takeoff and landing data. Coordinates with the MPC Mission Crew Commander (MCC) on mission requirements and accomplishes the appropriate briefing slides.

A29.2.6.2. **(552ACW) Pilot Proficiency Sorties.** Coordinates with the SARMS, flight engineer, navigator and CT/CSO and accomplishes all briefing slides prior to the brief.

A29.2.7. **(552ACW) MPC Mission Crew Commander.** Coordinates with other mission crew members of the MPC to determine mission requirements. Coordinates with the MPC AC on all mission requirements and accomplishes the appropriate briefing slides.



A29.2.8. **(552ACW) Section Chiefs.** Each section chief: (1) selects the MPC planner for that section, (2) builds the load list, (3) ensures GO/NO-GO requirements are satisfied, and (3) fills out the appropriate slides for mission planning (e.g. training required slides).

A29.2.9. **(552ACW) MPC members.** Each member is responsible for his/her section's or position's mission planning and for providing that information to the crewmember actually flying, normally via the briefing slides. MPC members must be knowledgeable about the currencies and the training requirements of aircrew members in that position. Aircrew members flying in key crew Positions (AC, MCC, Nav, SD, ASO, and ECO) are responsible for coordinating with the respective MPC member for an effective handoff of mission details. If necessary, the MPC member will show prior to show time to review details.

### **A29.3. (552ACW) C-Sortie, E-Sortie, S-Sortie, or Operational Sortie Timing.**

A29.3.1. **(552ACW) Day Prior to Mission Planning.** The following items must be completed prior to 1500L on the day prior to mission planning.

A29.3.1.1. **(552ACW) Load List inputs to C2MS** must be accomplished by section chiefs.

A29.3.1.2. **(552ACW) MPC members** must be selected and the MPC and training required briefing slides must be accomplished by section chiefs.

A29.3.1.3. **(552ACW) The DO staff** ensures the items listed in AXX.3.1. above are accomplished.

A29.3.2. **(552ACW) Mission Planning Day.**

A29.3.2.1. **(552ACW) Morning of Mission Planning.** Prior to the 1300 meeting, the MPC AC and MPC MCC should accomplish all necessary coordination with Current Ops and appropriate crew positions to resolve any problems and to ensure mission and/or training effectiveness is maximized.

A29.3.2.2. **(552ACW) Prior to 1030.** The SARMS must: (1) build the Load List, (2) run the GO/NO-GO, and (3) build the sortie package.

A29.3.2.3. **(552ACW) NLT 1130.** The MPC AC and MPC MCC will maximize training effectiveness, resolve potential problems, and finalize all mission planning slides.

A29.3.2.4. **(552ACW) 1300 Meeting.** The purpose of the 1300 meeting is to: (1) be a summary of mission planning already accomplished (2) verify timing and routing, (3) discover possible problems, (4) build contracts among crew positions in order to maximize training and/or mission effectiveness, (5) coordinate with Tactics, Intel, and Stan Eval, and (6) ensure situational awareness is maximized among aircrew members. After the meeting, the MPC AC and MCC should provide the SARMS with the Show Time, the updated Load List, and the required bus times. The MPC AC and MCC will finish the briefing slides for the Coordination and Execution Briefs.

A29.3.2.5. **(552ACW) 1400 DO Brief.** The MPC AC and MCC will brief the DO or designated representative on the mission and discuss Operational Risk Management (ORM) issues.

A29.3.2.6. **(552ACW) Day of Flight** (Coordination and Execution Briefs). The brief is designed to mimic theater operations. Basic timing and equipment status is briefed first and then the flight engineer and technicians are released early to preflight the jet. The rest of the crew stays behind to brief mission execution, ROE and flight deck operations.

A29.3.2.6.1. **(552ACW) Showtime**. Showtime is 2 + 30 prior to takeoff. This show time (1) provides adequate time for the flight engineer to preflight the jet, (2) allows time for both the mission crew and flight deck crew to build situational awareness, (3) allows time for the crew to adapt to changes (weather, timing, mission activity, etc.), and (4) allows time for academic continuation training.

A29.3.2.6.2. **(552ACW) Briefing Time**. Briefing starts NLT 5 minutes after show time.

A29.3.2.6.3. **(552ACW) Intelligence Briefing**. 513 OSF will normally provide a briefer at the beginning of the brief.

A29.3.2.6.4. **(552ACW) Bus Times**.

A29.3.2.6.4.1. **(552ACW) Flight Engineer and Technician Bus Time**. Showtime plus 15 minutes.

A29.3.2.6.4.2. **(552ACW) Flight Deck and Mission Crew Bus Time**. Showtime plus 1 hour and 15 minutes (1 hour after flight engineer and technician bus).

**A29.4. (552ACW) Pilot Proficiency Sortie (P-Sortie) Timing**. The IP who is designated as the aircraft commander (AC) is responsible for coordinating with the SARMS, navigator, flight engineer, and the communications section to accomplish all required mission planning. The AC is responsible for building the briefing slides. There should be an emphasis on academic continuation training at the end of the briefing. ACs must allow for sufficient time prior to the sortie to plan for training-effective fuel loads, transition bases, etc.

A29.4.1. **(552ACW) Day Pilot Proficiency Sortie (P-Sortie) Timing**. Mission planning is normally done on the working day prior.

A29.4.2. **(552ACW) Night Pilot Proficiency Sortie (P-Sortie) Timing**. Mission planning is normally done on the day of the flight.



## Attachment 30 (Added-552ACW)

## OPERATIONAL RISK MANAGEMENT (ORM)

**A30.1. Purpose.** This attachment establishes guidance for calculating individual and mission ORM scores. Electronic versions of the Individual Risk Assessment Card, Risk Assessment Worksheet, and the Individual Score Log can be found on the 552 ACW Safety CoP (<https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=AC-SE-00-58>). Any questions regarding ORM or changes to the process should be directed to 552 ACW Safety.

**A30.1.1. Mission Planning Day.** The crewmember will add the score for each row of the Individual Risk Assessment card to obtain an overall individual ORM score. The individual will then fill out the Individual Score Log by writing name next to crew position and placing ORM score in the MP Day Score column. If individual ORM score is greater than eight, notify the AC.

**A30.1.2. Fly Day.** The crewmember will add the score for each row of the Individual Risk Assessment card to obtain an overall individual ORM score. The individual will then fill out the Individual Score Log by placing ORM score in the Fly Day Score column. If individual ORM score is greater than eight, notify the AC.

 <div style="text-align: center;"> <b>552 OPERATIONS GROUP</b>  <b>RISK ASSESSMENT CARD</b>            VERSION 2 NOV 2009         </div> 					
INSTRUCTIONS: HONESTLY ADDRESS ALL OF THE FOLLOWING RISK FACTORS TO COME UP WITH A SORTIE RISK NUMBER. THERE ARE TWO PARTS: PERSONAL RISK FACTORS (BELOW) THAT EVERYONE COMPLETES, AND MISSION RISK FACTORS THAT THE AC COMPLETES. THESE ARE INTENTIONALLY SUBJECTIVE AREAS THAT ALLOW YOU TO QUANTIFY YOUR RISK BASED ON YOUR EXPERIENCE LEVEL. AC WILL TOTAL MISSION RISK FACTORS AND ADD IT TO FLIGHT ORDERS					
<b>I. PERSONAL RISK FACTORS</b> INDIVIDUALS: TABULATE SCORE FOR ALL AREAS					
LAST TIME YOU FLEW (IF INSTRUCTOR ON BOARD ONLY 50%)	<b>10 DAYS OR LESS</b> 0 (0)		<b>11-30 DAYS</b> 2 (1)		<b>MORE THAN 30 DAYS</b> 4 (2)
EXPERIENCE LEVEL	<b>EXPERIENCED</b> >1000 TOTAL HOURS and >250 E-3 HOURS 0		<b>MID-LEVEL</b> 500-1000 TOTAL HOURS or >250 E-3 HOURS 2		<b>INEXPERIENCED</b> < 500 TOTAL HOURS or < 250 E-3 HOURS 4
HOW MANY HOURS OF SLEEP LAST NIGHT?	<b>SLEEP HOURS - TOP POINTS - BOTTOM</b>		<b>SLEEP HOURS - TOP POINTS - BOTTOM</b>		<b>SLEEP HOURS - TOP POINTS - BOTTOM</b>
	8+ HRS 0	7 HRS 2	6 HRS 4	5 HRS 8	3-4 HRS 12      ≤ 2 HRS 16
RATE YOUR PERSONAL STRESS: (RELATIONSHIP, FINANCES, FAMILY, ETC)	<b>LOW:</b> 0    1    2		<b>MEDIUM:</b> 3    4    5		<b>HIGH:</b> 6    7    8

HEALTH CONCERNS WITH SELF/FAMILY?	NONE: 0	SOME: 2	SUBSTANTIAL: 4
ANY JOB OR ADDITIONAL DUTY STRESS?	NONE: 0	SOME: 2	MAJOR AMOUNTS: 4
CIRCADIAN RHYTHM DISRUPTION	NONE: 0	SOME: 2	SUBSTANTIAL: 4
<b>PILOTS ONLY:</b> CRITICAL PHASES OF FLIGHT	PERFORMING/SUPERVISING ONE CRITICAL PHASE OR LESS: 0	PERFORMING/SUPERVISING 2-3 CRITICAL PHASES: 2	PERFORMING/SUPERVISING 4 OR MORE CRITICAL PHASES: 4
<b>TOTAL YOUR PERSONAL RISK SCORE:</b>	LOW - GREEN	8 OR LESS	LOW RISK
	MED - YELLOW	9-16	NOTIFY AC
	HIGH - RED	17 OR MORE	AC NOTIFY SQ CC/DO

INDIVIDUALS ENTER YOUR SCORE ON THE ORDERS  
**NOTIFY AIRCRAFT COMMANDER IF YOUR SCORE IS > 8**

## 552 OG OPERATIONAL RISK ASSESSMENT WORKSHEET

DATE: \_\_\_\_\_ AIRCRAFT COMMANDER: \_\_\_\_\_ MISSION NUMBER: \_\_\_\_\_

### \*MISSION PLANNING DAY

ITEM	LOW	Pts	MEDIUM	Pts	HIGH	Pts	SCORE
Aircraft Commander (AC)	Instructor/SEFE	0	Experienced	3	Inexperienced	6	
AC Currency/ Last 30 Days	2 or more flights	0	1 flight	2	No flights	4	
Pilot (CP)		0	Experienced	2	Inexperienced	4	
CP Currency / Last 30 Days	3 or more flights	0	1-2 flights	2	No flights	4	
Navigator	Instructor/SEFE	0	Experienced	2	Inexperienced	4	
Flight Engineer	Instructor/SEFE	0	Experienced	2	Inexperienced	4	
Mission Crew Commander	Experienced	0			Inexperienced	3	
Senior Director	Experienced	0			Inexperienced	2	
Air Surveillance Officer	Experienced	0			Inexperienced	2	
Planned Ops Stop	No	0			Yes	2	
Joint Operations	No	0	W/another service	2	W/another country	4	
Crew Rest	IAW AFI guidance	0			Waiver to AFI req'd	6	
Show Time (Local)	0700-1200	0	0500-0659 1201-2000	2	2001-0459	4	
Planned Duty Day	≤ 12 hrs	0	> 12 hrs but ≤ 16 hrs	2	> 16 hrs	4	
Air Refueling	None / VMC	0	IMC or tanker cell	3	IMC and tanker cell	6	

Day/ Night Mission	Day Mission	0	Night Takeoff, Air Refueling or Landing	2	Night Mission	4	
Flight Transition	None < 45 minutes in pattern	0 2	45-90 minutes in pattern	4	> 90 minutes planned or TX duty day waiver req'd	6	
Check-ride on board	None	0	One crewmember	1	2 or more check-rides	2	
Mission Complexity	Normal training missions	0			Any non-standard mission (ONE msn, tailswap, ORE msn, etc)	4	

**MISSION PLANNING SCORE:****PERSONAL & MISSION SCORE:**  
(SEE REVERSE)Total ORM Scores From: Mission Planning + Personal & Mission Factors = **TOTAL ORM SCORE:**

ORM Scale		INDIVIDUAL INFORMED	SIGNATURE	OPS SUP INITIAL
< 55	Low-Risk	AC signature		
56-85	Medium Risk	OPS Sup approval req'd		
86-100	High Risk	SQ/CC & DO approval req'd		
100+	Extreme Risk	OG approval req'd		

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**FLY DAY**

- AC WILL ANNOTATE THE HIGHEST PERSONAL ORM SCORE FROM EACH SECTION IN THE PERSONAL FACTORS MATRIX BELOW. ADDITIONALLY, THE AC WILL AVERAGE PERSONAL RISK FACTORS OF THE FLIGHT DECK AND ANNOTATE THE SCORE ON THE RIGHT SIDE OF THE PERSONAL FACTORS CHART.
- EACH INDIVIDUAL'S ORM WILL BE ANNOTATED NEXT TO THE INDIVIDUAL'S NAME ON THE INDIVIDUAL ORM ASSESSMENT SCORE CARD. (INDIVIDUAL ORM ON MISSION PLANNING DAY WILL BE ANNOTATED UNDER MP DAY)
- TOTAL PERSONAL RISK SCORES:  
8 or less: Good condition (no action necessary)  
9-16: AC notified  
17+: AC notify SQ/CC & DO

**\*\*PERSONAL FACTORS**

ITEM	HIGHEST NUMBER PER SECTION
Flight Deck	
Weapons	
Surveillance	
Technicians	

ITEM	LOW	Pts	MEDIUM	Pts	HIGH	Pts	SCORE
Pilot in Command	PIC ≤ 8	5	PIC > 8 ≤ 16	10	PIC ≥ 17	20	
Flt Deck Avg	Average of all individual flight deck ORM scores						
Highest Individual Crew Member Score	All individuals ≤ 8	5	Any individual > 8 ≤ 16	10	Any individual ≥ 17	15	

**PERSONAL SCORE:****\*\*\*MISSION FACTORS**

ITEM	LOW	Pts	MEDIUM	Pts	HIGH	Pts	SCORE
Departure WX (RCR, low ceiling, thunderstorms, turbulence, icing, gusty winds, alt req'd)	No factors	0	1-3 factors	3	4 or more factors	6	
* En-route Weather	No hazards	0	Light precipitation/ icing/turbulence	2	Thunderstorms, moderate icing/turbulence	4	
Destination WX (RCR, low ceiling, thunderstorms, turbulence, icing, gusty winds, alt req'd)	No factors	0	1-3 factors	3	4 or more factors	6	
Crosswinds	5 dry	0	15 dry/10 wet	4	> 20 dry/> 10 wet	8	
CFIT risk factors (unfamiliar airport location, mountainous terrain, black hole effect, language barrier, non-radar environment, low- vis, night, lack of precision appr)	No factors	0	1-4 factors	4	5 or more factors	8	
Aircraft Systems	FMC	0	PMC	2	FCF/OCF/Waiver Req	4	
Mission Systems	FMC	0	PMC	1	FCF/OCF/Waiver Req	2	
Bird Condition	Low	0	Moderate	4	Severe/Need OG waiver to TO or Land	8	
* Airfield Construction/ Status	>9000' runway, NO CONSTRUCTION	0	7000-9000' runway, MINOR CONSTRUCTION	3	7000' runway, HEAVY CONSTRUCTION AIRCREW SCRUTINY	6	
Destination Familiarity	Home-station	0	Frequent TDY locations	2	Two times or less/ Never been to	4	
Mission Stressors (Msn changes, msn delays, Threat Con, Crew Position Changes, etc.)	None	0	Few	1	Multiple	3	
AC Discretionary Points	None	0	Yes	1-3	Yes	4-6	

\* Note: Any one condition warrants point total.

**MISSION SCORE:**

### Individual Score Log

Crew Position	Name	MP Day Score	Fly Day Score
<b><i>Flight Deck</i></b>			
Pilot			
Pilot			
Pilot			
Nav			
Nav			
Flt Eng			
Flt Eng			
<b><i>Technicians</i></b>			
CSO			
CSO			
CT			
CT			
CDMT			

